



College AND UNIVERSITY Business

**JUNE 1952: Retirement Policies • Work Simplification in
Food Service • Budget Preparation • Business Manager Looks
at Maintenance • Purchasing Handbook • College Tax Problems**



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ABOVE • New home of General Petroleum Corporation, Los Angeles.



AT LEFT • Spiral garage of revolutionary design, for General Petroleum employees. Over 450 cars can be parked by drivers themselves, at right angles to the center traffic lanes on the continuous ramp 60 feet wide.

A LIMIT?..YES AND NO!



In Los Angeles the building height limit is 150 feet, but there is no limit on architectural innovations. This is ably demonstrated in the praiseworthy General Petroleum Building, the exterior of which is distinguished by huge vertical aluminum fins which shield office windows from the intense sun. Inside, movable partitions permit offices to be expanded or contracted quickly and at trifling

cost to meet changing space needs. These and other unique features make the West Coast home of the "Flying Red Horse" a business building of high rank. In both buildings pictured, as in thousands of other high ranking buildings, efficient, economical and enduring SLOAN Flush VALVES were installed throughout—more proof of preference that explains why . . .

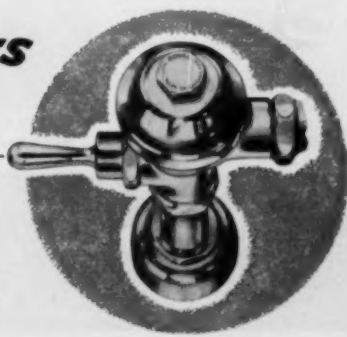
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- ★ Beth-El Hospital
- ★ Skidmore College
- ★ University of Michigan
- ★ King's Arms Tavern
- ★ Greenwich Hospital
- ★ Maple Hill Restaurant



MERIT AWARD—Du Pont Hotel, Wilmington, Del. Stainless steel cook's table, built-in tray rest.

● With the many fine entries in this year's Institutions Food Service Contest, these installations had to *earn* their awards. In each case, equipment and layout combined to provide efficient operation and a high degree of sanitation. Such prize-winning installations typify the sound planning, good design and fine fabrication which have won 21 awards for S. Blickman, Inc. in 5 years. Smooth, crevice-free surfaces and sturdy, welded structures guarantee ease of cleaning and durability under severe daily use. In terms of *permanence* and low operating cost, Blickman-Built food service equipment is your logical choice, too.



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MERIT AWARD—King's Arms Tavern, Colonial Williamsburg, Va. Stainless steel cook's table.



MERIT AWARD—Beth El Hospital, Brooklyn, N.Y. Stainless steel dish tables in dish pantry.



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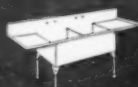
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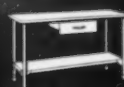
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Published monthly by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc., 919 North Michigan, Chicago 11, Ill., U. S. A. Otto F. Ball, president; Raymond P. Sloan, vice president; Everett W. Jones, vice president; Stanley R. Clague, secretary; John P. McDermott, treasurer. Copyright 1952, by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc., Acceptance under Section 34.64, P.L.R., authorized. Published on the tenth of the month of the date of issue. Change of address should be sent thirty days in advance of publication date.

Vol. 12, No. 6, June 1952

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Among the Authors



John F. Bender

JOHN F. BENDER, professor emeritus of school administration at the University of Oklahoma, was recently assigned by the board of regents to investigate the retirement policies and practices of 37 representative colleges and universities. The results of his investigations, reported on page 19, should prove of interest to college administrators, all of whom are faced with the problem of equitable retirement policies. Dr. Bender has been active in school administration since 1906, and for 25 years was professor of school administration at the University of Oklahoma. For relaxation, he is a collector of biographies, particularly those that have reference to the life and time of Abraham Lincoln.



Herman M. Shipps

HERMAN M. SHIPPS, vice president and director of university relations at Ohio Wesleyan University, on page 23 advises the college administrator and trustees to make a sincere effort to improve faculty salaries if they expect theirs to be an institution of significant scholarship. As the founder of the *Ohio Wesleyan Alumni Magazine* and its editor for the last 17 years, Mr. Shipps is keenly aware of the importance of holding the loyalty and support of alumni and friends of the institution. An adequate salary scale, he believes, helps gain support and respect for the institution.



L. H. Foster Jr.

LUTHER H. FOSTER JR., business manager of Tuskegee Institute, outlines on page 25 some of the findings reported in his doctoral dissertation on the budget program of the private college. An analytical student of college administrative techniques, Dr. Foster wrote his M.A. thesis on administration of the physical plant and has just received his Ph.D. on his study of budget programs. Dr. Foster entered college administration as a general business office assistant at Hampton Institute in 1932, was appointed budget officer at Howard University in 1936, and has been business manager of Tuskegee Institute since 1941. He is secretary of the American Association of College Business Officers and has taken an active part in the formation of the National Federation of College and University Business Officer Associations and the Committee on Preparation of the Manual for College Administration.



Frank A. Beu

FRANK A. BEU, president of Western Illinois State College, takes issue with Harriet Brooks' analysis of college presidents and "how they get that way" which appeared in the April issue. On page 27 Dr. Beu rallies to the defense of the presidents. He was principal and coach at two Illinois high schools before becoming dean of Eastern Illinois State College at Charleston, Ill., in 1929. President of Western Illinois State College since 1942, Dr. Beu is the author of five books; in his research work he has determined correlations between I.Q. and the athletic ability of college students.

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Questions and Answers

The Key Problem

Question: The issuance of keys to our faculty always has been a source of friction between business office and faculty. Is a key deposit the answer, or have more effective methods been devised to assure the return of keys at the end of the academic year? —C.W., N.Y.

ANSWER: The members of our faculty are employed on a 12 month basis and normally are on duty for 11 months of each year. We find that it is not necessary to have them turn in keys at the end of each academic year.

In approaching this key problem, we have included (in addition to security of premises and accessibility of assigned space to staff members) the factors of accessibility for maintenance services, utilities services, janitorial services, and police and fire protection.

Over-all control to coordinate these functions is facilitated by the fact that all key and lock work for the campus is done by the key department of the plant and grounds division, which also includes the departments furnishing the various service and protective functions mentioned.

All keys made and issued are charged to the individual staff member. When a new staff member is employed, he is issued the key or keys for which he is eligible, and a complete record is filed. He continues to hold these keys until he is transferred to new quarters or leaves the employ of the university. If transferred, he turns in old keys at the time new ones are issued. Upon termination of services, outstanding keys are included in property on which he must have clearance before the final pay check is delivered. A nominal charge is made for keys lost and replaced during employment.

We have embarked on a lock and key control plan, the main feature of which is called a "certified keyway." This keyway provides key openings in locks and matching key blanks that, by agreement with the manufacturer, are unique to the locks provided the university. This system provides that only keys cut from our blanks can be inserted in our locks; it also has features that contribute to the flexibility we can achieve by "master keying." The

equipment has been used in all new construction for the past several years and will be used in future new construction as well as in remodeling. Eventually, certified keyway locks will be used in all buildings.

At present, we are using two separate keyways furnished by different manufacturers. One is used exclusively for the student housing group, and the other for the rest of the campus. We felt that a separate keyway for student use was desirable, and also did not want to get completely out of the competitive market in the buying of locks.

The housing office is supplied with keys and handles distribution and recovery of keys from student tenants. The system of issuing keys to personnel of the housing office and of mastering student keys and locks is the same as for the faculty.

The system of lock and key mastering provides accessibility to unit spaces, areas and buildings on the basis of functional need and responsibility, with a minimum of keys and key types, both on an over-all and on an individual basis. For each room in a building, a key can be prepared that will unlock that room only. This type of key is issued to an individual having a room, but no supervisory responsibility over persons in other rooms. A department head will get a key that will open the doors of his room or rooms and, in addition, will open the doors to rooms of his subordinates. His secretary, on the other hand, gets a key that will open his door only. This hierarchy is continued through whatever levels are necessary until we come to the building master key that will open all the doors within the building. Finally, there is the "great grand master," which will open

all doors to and within all buildings serviced by that particular keyway.

The ultimate application of this system will result in our being able to open any door on campus by use of one of the two great grand master keys—or three, if it should become necessary to add another keyway. Keys at appropriate levels of mastery are distributed to personnel responsible for the various service and protective functions mentioned.—GEORGE BAUGHMAN, business manager, University of Florida.

Right Time to Build

Question: Is there any "right time" to construct new college buildings in today's economy?—R.K., Iowa.

ANSWER: The right time to construct new college buildings is when building labor and materials are in good supply and may be used without restriction. It is obvious that such conditions do not prevail at this time, nor do we have assurance that such conditions will prevail within the immediate future. Economists are prone to make predictions far into the future although they express considerable uncertainty concerning world affairs.

Colleges at present face a declining enrollment; therefore, the immediate need of new building is not a pressing one. On the other hand, it is predicted there will be an appreciable increase in the number of college students between 1955 and 1960. If favorable conditions do not prevail in 1954 or 1955, it may be necessary to construct buildings regardless of the economic picture in order to provide instructional space and facilities for the expected increase in enrollment.

Colleges should watch the construction situation in their own areas in order to determine when construction labor and materials become more plentiful. We have reason to believe that within the near future present restrictions on many materials will be more liberal or will be removed entirely. Such conditions will be conducive to lower costs of construction.—WALTER KRAFT, director of physical plant, University of Oklahoma.

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill.

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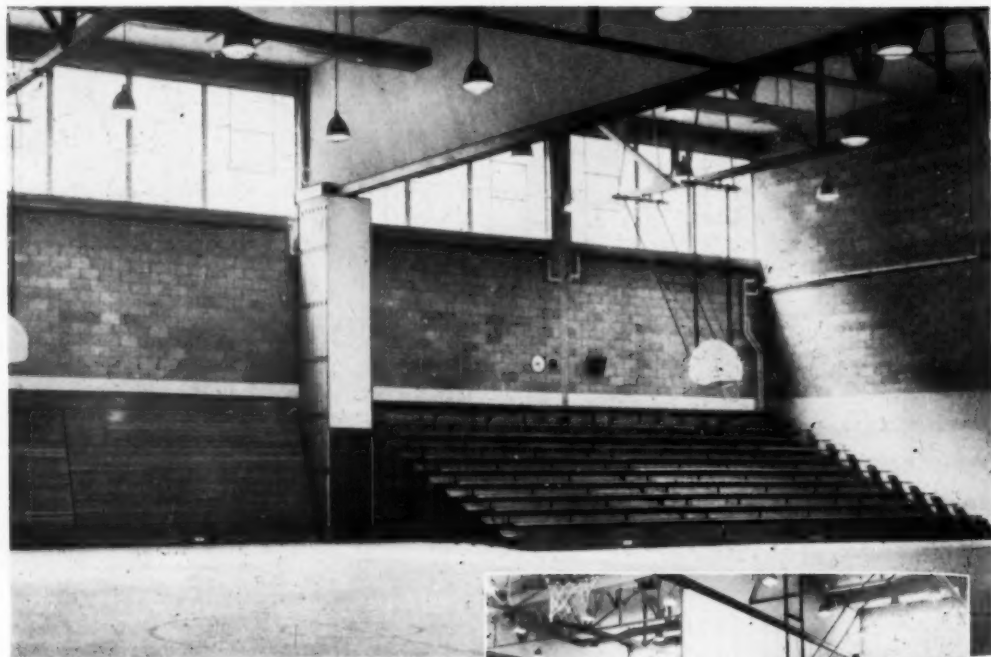


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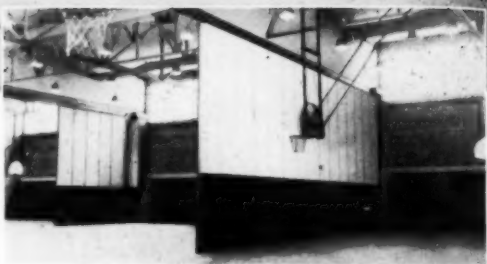


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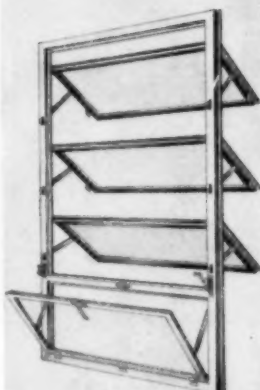
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LET'S GET TOGETHER WITH THE BOSS

WESLEY HERTENSTEIN

Superintendent of Buildings and Grounds
California Institute of Technology



GETTING TOGETHER WITH THE BOSS IS A LAUDABLE ambition. But those who are engaged in administrative and business activities for an academic institution know that this sometimes is difficult to accomplish. The question is, "Who is the boss?"

At first glance everyone appears to have a nominal boss, but in academic life we are oftentimes formally responsible to more than one person and are informally responsible to other persons or groups. Probably the superintendent of buildings and grounds or the purchasing agent, for example, is directly responsible to the business manager or president. But often for some functions he is responsible to faculty members and committees, and in some rare instances he is responsible directly to the board of trustees or a committee of that board.¹ In addition he also must receive and act on certain requests from academic department heads, from student groups, from directors of auxiliary enterprises, and so forth. For practical purposes, these persons and these groups are all his bosses.

The quality of an academic institution usually is judged by three factors. The first is the quality of the academic staff and its ability to teach and accomplish creative work in its own right. The second is the quality of the student body, both undergraduate and graduate, the care with which they are selected, and the standard of work which they must maintain. The third, and not necessarily least important, is the physical plant—the campus, the academic buildings, the laboratories, the libraries, the housing facilities together with the necessary organizations to operate them.

Besides these three, however, there is still another quality, less often thought of, but of fundamental importance in the general effectiveness of the university. This is the ability of all of the personnel to cooperate and make the different functions act as an integrated whole. To produce this cooperation those of us engaged in operating the physical facilities of the university must be able to get along with all the bosses. Our institution may have the best instructional staff, the most wisely chosen student body, and

fine physical facilities, but if the nonacademic administrator cannot maintain friendly cooperation with them, the effectiveness of the university will fall short of its maximum.

How is this cooperation to be established and maintained? First of all, there is the matter of complaints. When any one of these numerous bosses makes a complaint, it should be investigated immediately. If it is justified and if remedial action is possible, that action should be taken at once. Prompt action eliminates many of the little frictions that hinder effective cooperation. If the complaint seems to be unjustified or if no remedial action is possible, that is the time to "get together with the boss." A few minutes of direct talk can do more to bring about a satisfactory understanding than a deskful of inter-office memorandums or notes.

Or take another familiar situation. One of the academic bosses—an individual or a group—wants something, but the procedures laid down are not possible or appear to be contrary to the over-all best interests of the institution. A curt "It can't be done" is one way of meeting the situation. But it is a bad way because the resentment and ill-feeling that it causes make any subsequent cooperation difficult or impossible. A far better way is for the nonacademic administrator to give the problem some detailed and careful thought and come up with a substitute plan that is workable and serves the best interests of the institution. Then he can get together with the boss, and, in the discussion of the problem and the feasible way of working it out, mutual understanding and cooperation can be established.

We nonacademic administrators must make an effort to recognize who the bosses are, and what their functions are, and we must study their problems in the light of what is best for the institution as a whole. When we get together with them, we must be ready and able to offer constructive criticism. If we can do this, we shall not only make our own jobs easier, but, what is more important, we shall help increase the over-all effectiveness of the institution for which we are working.

Looking Forward

Needed: Intestinal Fortitude

THE RATIONALIZATION THAT HAS TAKEN PLACE among many college executives in regard to intercollegiate athletics is most discouraging. Though publicly deploring unsavory conditions in intercollegiate athletics, many have found every excuse in the world for not taking corrective action.

It is encouraging to note that the North Central Association of Secondary Schools and Colleges will consider intercollegiate athletics as a phase of education and will deny accreditation where it is of the opinion that athletics is subverting the objective of higher education. To quote the North Central Association in its statement at the annual meeting of the American Council on Education: "An unsatisfactory athletic situation can have such far-reaching consequences, sometimes penetrating to the very core of institutional integrity, that the existence of such a situation in an institution will be regarded as a serious enough weakness to justify the denial of accreditation. This policy makes explicit the fundamental principle that athletics is an institution-wide affair; no longer can athletics be considered the exclusive province of athletic directors and coaches. Athletic policy is educational policy."

Something must be done to enforce decent standards in intercollegiate athletics. The public is becoming increasingly cynical regarding the professed high standards of higher education when it observes the apparent complacency of college administrators in the face of intercollegiate athletic scandals.

The North Central Association of Secondary Schools and Colleges is to be congratulated for its courage in utilizing its machinery of accreditation to enforce compliance with decent standards. Other regional accreditation agencies have had the same opportunity to act.

Faulty Planning

ON ALMOST EVERY HAND ONE HEARS COMPLAINTS from college union directors, food service managers, and superintendents of buildings and grounds whose opinions and experience were ignored during the preliminary phases of planning new facilities now turned over to them to maintain and operate. Maybe it's the ego of the architect involved but, whatever it is, any building would be considerably improved if the operator or user of the building was consulted early and frequently. If the operator of the building is competent, which ought to be the case if the institution expects him to operate the facility efficiently, then he has constructive suggestions to make during the early planning and construction of the building. Some colleges have paid dearly in operating expenses for such oversight.

Convention Postmortem

AS ONE TRAVELS FROM ONE COLLEGE ADMINISTRATORS' convention to another, it becomes apparent that convention programming needs to be more carefully developed.

One of the glaring weaknesses is "overprogramming," coupled with an inadequate time schedule. Too much is crammed into a two-hour session—and the time-keeper forgets to ring the bell. The printed program of the convention should list exact starting and finishing time for each speaker and specified time for any discussion periods. A program starting at "9 a.m. and luncheon at noon" is not properly set up, either for the convenience of speakers or delegates.

If the program is listed for 9 a.m., start at 9, not at 8:59 or 9:01, even if the convention hall is half empty. The delegates have no respect for the convention time schedule if the chairman fails to get the "show on the road" at the time listed.

Proper consideration of the membership of the association should be kept in mind when planning convention programs. In college circles, the commonest complaint is that the "small college doesn't get a break." The program should be diversified and not top-heavy in program items that have little interest for administrators from small colleges.

Spring Fever?

THERE ARE MANY WHO HAVE DISMISSED THE nationwide rash of raids by college boys in search of coeds' lingerie as exuberant demonstrations of "spring fever." The pantie-bra raid has succeeded the goldfish swallowing orgy of another decade as the zany contribution of the current generation of college students. What was first an amusing stunt now appears to have got out of hand, however.

Perhaps the raids are symptomatic of the innate rebellion of students against authority, but more likely they represent a desire to "keep up with the Joneses" and hog the limelight. For college administrators and the local constabulary, they are an unmitigated headache.

There can be serious repercussions to the raids. Some Selective Service boards are not looking with much favor on pantie-bra raiders who are receiving college deferments from Korean activity. So far, veterans from Korea have not been quoted on the subject. It might be an interesting interview.



Photo by Ewing Galloway

RETIREMENT POLICIES and PRACTICES

in 37 colleges and universities

JOHN F. BENDER

Professor Emeritus of School Administration
University of Oklahoma, Norman

DURING THE SCHOOL YEAR OF 1950-51 an investigation was undertaken of the retirement policies and practices of 37 representative colleges and universities in the United States. The investigation was authorized by the board of regents and the president of the University of Oklahoma. It was limited to the teaching faculties of the institutions selected. Ten of these schools are privately controlled and 27 publicly controlled.

The privately controlled group includes Harvard, Yale, Syracuse, Oberlin, Columbia, Rice Institute, University of Chicago, Cornell, Dartmouth and Stanford.

In the publicly controlled group are the universities of Texas, Kansas, Colorado, Missouri, New Mexico, Arkansas, Illinois, Nebraska, Montana, Michigan, Tennessee, Indiana, Idaho, Arizona, Kentucky, Virginia, Oregon State, Washington, West Virginia, North Carolina, Minnesota, Wisconsin, Iowa, Ohio State, California, Louisiana and Alabama. These represent about half of the state universities of the nation.

On request each institution provided information about its latest plan for retirement to the date of May 1, 1951. This information in the form of printed pamphlets, stencil duplicated material, and letters of explanation indicates that continuous modification

of retirement plans in order to meet changing conditions is taking place.

Many of the plans are fairly elaborate and cover a number of details. Accordingly a brief statement of the essential features of the plan for each institution was prepared and submitted to an official for correction and approval. It may be assumed, therefore, that the corrected briefs are an accurate description of the policies and practices in each case as of May 1, 1951.

The entire body of information from the 37 institutions provides the facts about prevailing practice on the following matters:

1. Normal age of retirement
2. Provisions for service after retirement
3. Amount of the retirement allowance
4. Methods of building up a fund for retirement
5. Disability benefits
6. Death benefits
7. Percentage of faculty fully retired
8. Total amount paid retired members for the year 1949-50
9. Evidences of adaptability to meet new and changing conditions

Important findings on each of the nine items specified are as follows:

Normal Age of Retirement.—Of the 27 state controlled institutions 17 provide that 70 shall be the normal age

of retirement. This is 63 per cent of the total number. Five states have 65 as the normal age; one has set the age at 67, and four at 68.

Some officials in the institutions that retire staff members at an age less than 70 have volunteered the information that a higher age is under consideration or should be considered. In addition, in some, if not most of the same institutions, provisions for year to year continuation of services are made. So prominent are such provisions that retirement at the age specified can hardly be called a rule that covers most cases. A better rule—one that would apply to most cases—would be retirement at 70, with provisions for retiring or placing on part time those few who are incapacitated for full-time service before 70.

Considering the shortage of capable instructors and research specialists in colleges and universities, it does not seem wise to retire competent people at 65, or at any age less than 70, unless adequate replacements are assured. Moreover, few institutions have the financial resources to retire their staff members at less than 70 and at the same time pay them on retirement even a fairly adequate allowance. Figures submitted by one university with a faculty of more than 1100 show the differences in allowances on retirement at 65 and at 70. Assuming a

fixed total sum for retirement to be distributed to each individual, the annual allowance at 70 is about 50 per cent more than at 65.

Provisions for Service After Retirement.—There are wide extremes of practice here. In a few of these state institutions members retired at 70 are virtually all placed on half-time service at half salary. In at least three other institutions almost all members are fully retired at 70, and no further service is permitted.

These extremes of practice are not typical. Most other institutions provide in various ways and to varying extents for year to year services either full time or part time. In the year 1950-51 one institution had 35 retired staff members on part time; this was about 3 per cent of its total staff. This institution is not among those that practice one of the extremes indicated.

Amount of Retirement Allowance.—With few exceptions the annual allowances are one-half the salary at retirement. These allowances are calculated in terms of one-half the average full-time salary for the five years preceding retirement. In a few cases it is one-half the average of the 10 years preceding retirement. Considering the rapid increases in costs of living and the consequent increases in salaries in recent years, it would seem reasonable to conclude that the annual retirement allowance should be based on the more recent salaries. Some school officials have suggested that, since most retirement funds are so calculated or built up as to be a fixed sum for each individual, supplemental increases in allowances should be provided when costs of living increase much beyond what they were when the amount of an allowance was determined at the time of retirement.

One of the older state universities reports that its standard of annual allowance was once one-half salary plus \$400. This was the original Carnegie plan. Provisions in some other institutions now indicate that their plans for building up a retirement fund still include the standard of something more than half salary. This is the case in another of the older institutions where each of several systems established and in use for some years contemplated as a minimal retirement allowance something more than one-half the terminal salary.

Some, perhaps most, institutions set an upper limit, or a maximum, to retirement allowances. These maxi-

mums range from about \$2500 to \$6000. Until 1949 one large university had a maximum of \$4000. In that year this maximum was removed and no limitation was specified.

Another institution with a faculty of more than 2000 has set a minimum of \$2400 but has specified no maximum.

If the annual cost of living for a two-person family, as indicated in a section of the full report of this investigation, range from \$2800 to \$3000, then some of the specified maximums do not meet these costs. Moreover, if the dollar of today is worth about 56 cents as compared with the dollar of 1939, then \$3000 now has no greater buying power than \$1680 had in 1939.

Methods of Building Up a Fund for Retirement.—Most institutions are using the joint-contributory method for this purpose. There are many variations in the application of this method. They appear both in the amounts of the contributions in terms of percentages of salary and in the proportions carried by the employer and the employee respectively.

One fairly common method is to set aside regularly a total of 10 per cent of an employee's salary shared equally at the rate of 5 per cent by employer and employee. A considerable number of institutions fix also an upper limit on salaries for this percentage deduction. Two institutions, for example, fix \$5000 as the limit for such deductions.

Among the 27 state institutions the lowest total percentage of deduction

reported is 8½. The highest reported is 15 per cent by three institutions. Other reported percentages are 12, 12½, 13 and 14.

In five of these state institutions the joint-contributory plan is not followed, and no deductions from salaries are made. The entire cost of retirement allowances is carried by each institution as a part of its instructional budget, and the faculty member contributes no part of his salary.

"A summary of the total percentages of each salary used to build up a fund for retirement is as follows: Five states make no deduction; one deducts 8½ per cent; seven deduct 10 per cent; two, 12 per cent; one, 12½ per cent; one, 13 per cent; two, 14 per cent; three, 15 per cent; one varies the rates according to age and sex; four make no mention of the rates of deduction.

The division of the total percentages indicated here between the institution and the faculty member was reported for each of 19 of the state institutions. In 13 cases it was on an equal matching basis. In six cases the institution set aside 5 per cent of the member's salary and deducted 5 per cent from the salary for a total of 10 per cent. In two cases the institution and the member each contributed 6 per cent for a total of 12 per cent. In one case the institution and the member each contributed 6½ per cent for a total of 13 per cent. In one case the contributions were 7 per cent each. In one case there was a matched contribution of 7½ per cent each. In two cases



Wives of some retired faculty members find they must supplement the family income by doing part-time work.

the percentages were equal, but the sizes of the percentages were not indicated.

In six cases the matching plan is not used; in five the institution contributes more than the member, and in one the institution contributes less. The distribution of percentages with the institutional part given first in each case are: one case, 7½-5; one, 7-5; two, 10-5; one, 6½-3½; one, 3½-5.

That the percentages indicated are in many cases not sufficient to build up an adequate retirement fund for many individuals is indicated by the frequency with which supplements are provided for. Supplements in many cases are necessary for four reasons. One is the fact that most state retirement systems are fairly recent in establishment. The period of time necessary to build up a fund by regular percentage contributions of the institution and the member is too short for an adequate retirement fund to be accumulated. A fund that can by this means be built up only over a period of from 25 to 50 years cannot thus be built up if the contributions have been accumulating for only 10 or 15 years. Since the annual retirement allowance should have some relationship to the annual cost of living, supplements are necessary in such cases.

A second reason why supplements are necessary is that many of the joint contributions are too small. The higher contributions are now 13, 14 and 15 per cent. But only six of the 27 state institutions provide for such percentages—one, 13 per cent; two, 14 per cent, and three, 15 per cent.

The mode is 10 per cent by seven institutions. Assuming an average salary of \$5000 a year, an individual on this percentage would build up a fund at the rate of \$500 a year for retirement purposes. Even in 40 years at this rate he would have only about \$20,000 to rely on during the 10 years that he supposedly lives after retirement at 70. The opportunity, moreover, to accumulate at this rate for this period of time comes to few college faculty members. In this connection, too, the fact should be kept in mind that the cost of living for a two-person family is now about \$2800 to \$3000 a year. The total cost of living for such a family for 10 years under present conditions would be \$28,000 to \$30,000. An annual contribution of 10 per cent on a \$5000 salary probably will not accumulate such a fund. The rapid increase in costs of living



Photo by Ewing Galloway

The annual cost of living for a two-person family today ranges from \$2800 to \$3000. Many retirement plans do not pay that much.

in recent years is another reason why supplements are necessary. Where the joint contribution plan is followed, contributions have been built up largely on much smaller salaries than those paid in recent years. Older faculty members now retired or nearing retirement have had little of the advantage of high salaries on which to build a retirement fund. Yet the typical cost of living is the same for them as for those whose salaries have been increased.

RETIREMENT FUND INADEQUATE

A final reason for the need of supplements is found in the nature of the salary scale. Some institutions operate on a relatively high salary scale. Faculty members have the opportunity of creating over the years a fairly adequate fund for the years of retirement. Other institutions operate on a relatively low salary scale. Even with a fairly high percentage of contribution such salaries will not create a fund anywhere nearly adequate for a 10

year period of retirement. If, in addition, the percentage of contribution is low, the fund created for retirement will be wholly inadequate as measured by dependable figures on costs of living.

At the same time that salary scales differ greatly in different parts of the country, there is no evidence to indicate that costs of living differ to the same extent. The cost of living may be as high in an institution with a low salary level as in one with a high salary level.

An attractive feature of some retirement systems is the provision that the faculty member has a vested right not only to his own contribution but also to the contribution of the institution. The information from the privately controlled institutions indicates that they all have this provision as one of their retirement policies. A few of the publicly controlled institutions have this provision also, but most of them do not. The chief feature of this provision is that on retirement a fac-

ulty member may elect to take the entire contribution made for his retirement fund by the institution and by himself and does not have to get it only in the form of monthly payments which will cease, so far as the institution is concerned, on the death of the member.

An additional advantage of vesting not only the faculty member's contribution in him but also the contribution of the institution is the freedom of movement it gives him in his profession. If he had to sacrifice half of what he has built up for retirement every time he goes to another university, he either has too little to retire on eventually or is likely to stay put, when in the long run it might be to his professional advantage to shift employment.

SAFE INVESTMENT

One other attractive policy appears in a few retirement systems. In accordance with this policy a faculty member has the option of contributing more than the normal and specified amount. For example, in the case of the institution where the retirement fund is built up by a contribution of $7\frac{1}{2}$ per cent of the member's salary by the institution and 5 per cent by the member himself, the member has the option of increasing his own contribution by any additional amount or percentage of his salary that he wishes with the understanding that the institution will not match this increase. Where the institution further guarantees a specified rate of interest, like $3\frac{1}{2}$ per cent on the member's additional contribution, this provision takes the form of a safe and desirable investment.

Disability Benefits.—Many, perhaps most, of the retirement systems have as a secondary feature provisions for disability benefits. In general, such provisions are designed to cover disabilities resulting from injury or from physical or mental sickness that incapacitate a faculty member so that he cannot perform the duties of his position. Such disabilities are probably not numerous, but for the few affected by them they may be exceedingly serious. They are especially so for those who become permanently disabled. Any institution that leads in establishing such provisions on an adequate basis is giving evidence of a wholesome concern for its employees that will make an official connection with the institution very attractive.

The importance and extent of such benefits are indicated by figures on this item from one large state institution with a faculty of more than 4000. In the year 1950-51 its payments for disability benefits totaled \$193,579. This was paid to 202 employees and was an average of \$958 to each person receiving such benefits.

Death Benefits.—This in importance is probably second only to adequate retirement provisions. So important is it considered by some universities that they make the support of a group death and disability insurance plan obligatory for the members of the teaching staff. One university with a staff of more than 3700 has what it calls a \$10,000 group insurance program. Every faculty member must carry this insurance. The annual cost to the staff member is \$7.50 per thousand dollars of insurance carried. In amount this death benefit ranges from a minimum of \$5000 to a maximum of \$10,000. To the age of 60 the death benefit is \$10,000. Beginning at the age 61, it is reduced by \$1000 a year until at age 65 the coverage in the amount of \$5000 is constant until retirement. If a staff member dies before retirement, the insurance, whatever the amount, is paid to the member's beneficiary. The individual has no option about carrying the full \$10,000 coverage until age 61. The theory of the institution in reducing the amount of coverage after age 60 is based on the premise that the retirement contracts will be increasing in death benefits by a similar amount each year at that particular period in each individual's program of protection.

DEATH BENEFITS AVERAGE \$1794

One institution reports that death benefits in the cases of 39 employees amounted in one year to \$69,966. This is an average of \$1794. Of this amount \$54,966 was paid in cash to beneficiaries, and \$15,000 was used to provide beneficiary annuities.

Percentage of Faculty Fully Retired.

—Information on this matter from the 27 state institutions consulted was available from only 16. Practice varies greatly. The range is from 0.43 per cent to 8 per cent. In a faculty of 1392 the first of these two has only six fully retired members. In the second the faculty numbers 180 and 14 are retired. Percentages of retired members for the four with lowest percentages are respectively 0.43, 2, 2.37 and 2.40. Percentages for the

four highest are 6, 6.70, 7 and 8. The eight other percentages are 3, 3, 3.50, 3.60, 4, 4, 4.60 and 6.

Policies on age of retirement and on provisions for part-time services probably cause these great differences in proportions of fully retired members.

Total Amount Paid Retired Members for the Year 1949-50.—Information that seemed fairly definite was reported on this item by only four state institutions. They are large institutions and apparently keep detailed records so that the totals paid all fully retired faculty members can be computed. One of the four institutions reported that 152 fully retired faculty members received a total of \$373,000 in retirement allowances. A second reported 108 retired with total allowances of \$248,951. A third reported 67 retired with total allowances of \$166,123. A fourth reported 38 retired with total allowances of \$155,119.

A few institutions explained why they kept no records on this matter. Their part in the retirement program consisted in furnishing a percentage of the member's salary that was used to purchase a contract with some insurance company. Keeping a record of the amount paid each retired member they regarded as a responsibility of the insurance company and not of the institution.

Evidences of Adaptability.—It seems important that institutions be alert to modify retirement policies as changing conditions indicate that modifications are needed. The number of institutions that report such modifications is impressive. One state university reports the adoption of a retirement plan in 1937, which was successively amended in 1938, 1939, 1944, 1945 and 1946. It is assumed that these amendments were modifications by way of improving the original plan.

A faculty committee of another large state university announced a basic principle underlying a suitable retirement plan as follows: "The maintenance of an adequate retirement system for faculty members is equal in importance to current salary levels not only from the standpoint of protection of the interests of the individual faculty member but also from that of the competitive standing of the university in maintaining a high-grade faculty." Accordingly, the regents of this university in 1950 approved recommendations for strengthening its retirement statute although it already had developed a comparatively good plan.

AMONG THE SO-CALLED "WHITE COLLAR workers" who are receiving shivers of apprehension on every side today is the college professor and his colleagues of lesser rank. He is again about to be caught between the upper and nether millstones and may be ground into bonemeal at the drop of a hat or, more aptly, at the next lifting of the economic ceiling.

Of course, no one ever heard of a college closing because the professors stopped teaching—granted there was anyone left to teach—and when the Association of University Professors is quoted on any issue, it has to do not with salaries but with academic freedom, tenure, status or some other matter having to do with the honor of the profession rather than economic status.

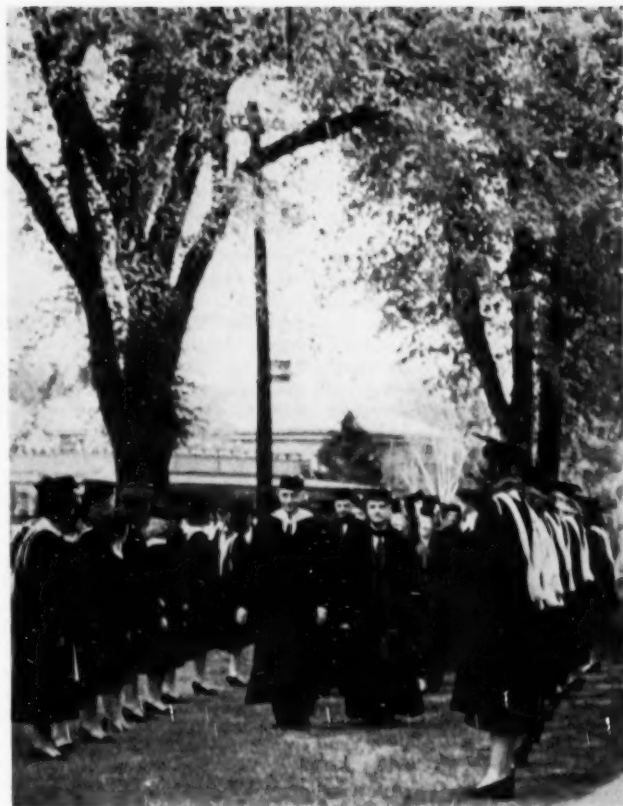
Are professors not interested in salaries? To answer this question, one has only to listen to any teacher who finds a sympathetic ear. Yet, they are self-sacrificing to an almost unbelievable degree and will bear whatever ills they have rather than fly over the walls and become extramural.

In these desires to give unselfishly and without recompense commensurate with their training, their capacity and their character, they often are abetted by administrators, who are not adverse to accepting salaries "in keeping with their positions" while they tell the alumni of the sacrifice of faculty members, who can't do anything about it but pity themselves.

Even the most considerate college presidents seem to see in the present situation, with rising prices, increasing wages for those who, presumably, don't wear white collars, and the danger of smaller student bodies, cause for new alarms and new crises, even for those who have leaped from one crisis to another as long as the oldest professor can remember.

With full knowledge as to who rushes in where angels fear to tread, and without quoting statistics, which surely are available but need be used only if someone has faith in statistics as final evidence of ultimate truth, we might make a few suggestions of pragmatic rather than ideal import.

The white collar worker, even the college professor, has something of real value to give to society. He or she has an investment in which he has a basic interest but in which society also has a share. This is a desirable commodity best appreciated by



GOOD SALARIES

are important to good teaching

HERMAN SHIPPS

Vice President, University Relations
Ohio Wesleyan University

those who have partaken of its fruit but little less acknowledged by many who also have desired it but who have been denied its beneficence.

Both those who have been in college and those who have not are more convinced than ever before in history of the desirability of higher education for their children. There was never a greater market for college education than there is today.

Goldsmith's doting mother who dreamed of "What a little Latin would do" for her hopeless son may have

overestimated the efficacy of a language dead, even then, but not as completely buried as today, but her hope was based upon common knowledge, even now perhaps not understood, but more universally believed, that college education is a desirable and worthwhile experience.

This common belief is evidence of a growing demand for what the college has to sell. Of course, the principal purpose of a college is not to be successful in its own business, not to seek to perpetuate an institution,

but to carry on a successful educational venture. But, to do so, it must be successful in business.

Where there is such widespread demand for what it has to sell, why is a college not able to pay reasonable salaries to the well prepared men of wisdom, character and educational fitness who are the *sine qua non* of any educational venture? Again rushing in, I would say that it is because someone has not had enough faith in his college to present well and widely what is offered and to charge what it costs to those who desire it.

When wages were a dollar a day for the nonwhite collar worker, some laborers sent their sons to college, or at least allowed them to go and helped as they could. True, tuition and board totaled only \$300 or \$400 a year, but at 10 to 20 cents an hour it took a long time to earn even that small amount.

Now, college costs may be \$1200 to \$1500 a year. But the boys now in college may receive a dollar an hour or more for common labor. Their fathers, if skilled laborers, may be receiving \$2 to \$5 an hour. Professors, working about 50 hours a week, teaching, studying, reading, may receive as much as \$2 an hour, but many do not.

College alumni, everywhere, are expected to share with the faculty the burdens of their colleges. It is easier to get \$60,000 a year from an alumni fund appeal today than it was to get \$15,000 in the Thirties. Before that, such funds were known in few colleges.

With the great numbers of students desiring college education, the matter of greatest importance is not how cheaply can that education be provided but how good can it be. The problem in the college is not to find things for students to do who want to earn money but to find students who will do their work well and fill the jobs that are available.

There is no lack of requests for "scholarships," which may be the means to help students who need help and who are willing to help themselves. More often they are means of price cutting, which can be advertised, to divert the attention of the prospect from the beneficent results of excellent educational offerings, and to fix their ideas upon a means of shifting financial responsibility from themselves and their parents to the underpaid professors.

Through the years some colleges have found it possible to finance their current operations in a way that provided very good salaries at a cost to the students below actual operating expense. Some seem to have been accidentally fortunate in large bequests or other gifts from wealthy patrons. Even so, current costs had to be paid largely by student fees. The colleges of highest endowment are not those with lowest tuition.

A college that aimed at academic excellence could charge what it cost and, eventually, the excellence would become known and those who desired to enter would crowd the doors. There was still plenty of opportunity for well prepared and able teachers to make sacrifices because they might have received higher salaries elsewhere. Also, they received compensations, nonmonetary, which made them willing, even eager, to teach. They will continue to do so. This will not relieve their administrators and their trustees from the obligation to see that all is done that can be done to reward them for good service.

Like other white collar workers, faculty members and those whom they serve must realize the value of their services. They must and can, I believe, be amply rewarded for what they have to give when *all* college administrators seek, not for cheapness, but for excellence, in college teaching; when the emphasis in advertising and

in all sorts of public relations activities is placed upon the service that colleges are rendering rather than upon scholarships, and when the quality of the performance keeps pace with the advertising.

When all of these things are done and not enough Emersonian mousetrap buyers are beating paths to the academic portals, what do we do? It is a long story, but to oversimplify one might say, "If you have a good story to tell, someone must tell it." Professors can't make their advertising of themselves very effective during life, although many are beatified by nostalgic disciples. So, someone must be paid to carry on a constructive, consistent, intelligent and honest public relations program *continuously*.

Results don't come overnight, but they do come. Any industry with the potential market that the good college has could take on the business and show a profit. In business one should do as the businessman does. Financial success is not the summum bonum of the college, but faculty salaries are important to good teaching. A balanced budget is a step on the way to a good educational program.

Any feeling on the part of teachers that "promotion" expense is a waste of their substance must lead to their doing more work for less pay. It helps to justify their fears for their white collar class.

The teacher is an important person. This truism finds almost universal acceptance. How important he is in terms of financial return depends upon the presentation of his case by the administration in person or by proxy.

College teachers and perhaps other members of the minority group known as white collar workers may not get the recompense they deserve. One might think, but, of course, he would never say, that colleges should learn as well as teach.

The Coffee Break . . .

. . . is becoming a fixture in industrial and institutional employment.

Donald E. Dickason of the University of Illinois will suggest in the July issue what the costs of such fringe benefits may be to the institution.

IN MAKING THE BUDGET—

remember that people, not things, are important

THERE IS WIDE USE OF THE BUDGET by colleges to accomplish desirable program objectives through efficient financial arrangements. In a recent study of private colleges with enrollments of from 750 to 1500 students, only one institution reported that it had no financial budget. Even in that instance, there was strong evidence that the college would soon have a budget program in operation.

The budget has been variously described, but there is usually a recurring theme in all the definitions. The budget is a financial tool to help accomplish an agency's program. It provides a medium through which that program can proceed and be measured, evaluated and modified.

Unfortunately, actual practices in some institutions do not always harmonize with generally accepted budgeting aims. Often it is only lip service that is rendered to the budgeting program. Red tape and confusion are frequently—but improperly—considered necessary parts of budgeting. Under such circumstances frustrating waste of energies and ineffective attainment characterize the budget. The significant possibilities of the college budget in planning and cooperation cannot then be realized.

The budget can and should be a process in human cooperation. An essential accomplishment of the budget is to establish a program that is appropriate to the environment in which the institution operates—an environment in which people rather than things are the major element. Particularly, the budget is concerned in large measure with arranging for the personal talents of faculty and staff to train the student enrollees. It readily can be seen, then, that the significant elements throughout the program—participants and beneficiaries—are people.

But this budgeting of human resources for social benefits should be made even more human. Budgeting requires the application of all the

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information, skills and judgments that reasonably can be brought to bear on the problems reflected through the budget. To do this, wide participation in planning the budget is necessary. Effective contributions can and should be made by faculty and staff as well as by the board of trustees and the college administration.

BOARD SHOULD SET POLICY

The program of a college should be reflected through clearly established policies emanating from the board of trustees. The board is thereby estab-



lished as the chief policy maker and as the body primarily responsible for the effective functioning of the institution. This arrangement is a generally recognized feature of good administration.

A basic concept in budget development is the guidance responsibility of the board, which should furnish purposeful direction to the program that the president administers. It will be unfortunate if the board has not crystallized its thinking into useful policies that reflect board responsibility for program direction. The president's efforts to procure guidance from such an unsystematic board will result only in futile grasping. Yet, it is surprising that this situation appears to exist oftener than it should.

I had occasion recently to review opinions of college board members and administrators with reference to budgeting and policy determination. College trustees often seemed unaware

of the influence that their policies should exert on the budget to help accomplish the major purposes of the institution. College presidents confirmed this general finding when they indicated in a number of ways that a substantial amount of policy determination rests with them rather than with their boards of trustees. Business officers, likewise, were generally convinced that in all too many cases budgets do not reflect effectively the wishes of college boards of trustees.

Why do some college boards of trustees fail to discharge their responsibilities for policy determination through the budget? Can this deficiency be remedied?

For one thing, some college presidents have been forced to assume large responsibilities for policy determination to substitute for the spasmodic attention given the matter by their boards. This development has tended to place excessive responsibility for policy determination in the hands of the chief executive. A dual disadvantage results. First, it assigns the president a task of broad-gauged direction that cannot properly be handled by one person. Second, it diverts his attention from executive responsibilities that should be claiming his major efforts.

In other instances, college administrators may unwittingly discourage effective policy determination by their boards. Either an excess of detail may be sent to the board, or the information sent may be so sketchy that it fails to provide the needed background for judicious determination of major policy. The inappropriateness of either extreme is suggested by the fact that institutions with superior academic programs are the ones most likely to present major units of the institution's operations to the board for review. Such an arrangement permits effective statement of explanatory data without the risk of confusing the issues with too much detail. The board thereby has opportunity to observe



Effective policy determination may be discouraged by administrators by an excess of detail or sketchy information that fails to provide boards of trustees with needed background for judicious determination of policies.

broad movements in the program and to evaluate major trends and relationships.

Appropriate spending decisions can be made only if there are complete facts and adequate judgments about those facts. The board of trustees must participate, of course, at strategic points in the budget process. All others who are in a position to make useful contributions should be brought into the situation in an orderly and timely manner.

Budgeting appears in many institutions to be dictated by top management. The whole process is a downward flow, with little opportunity for participation on the so-called lower echelons. At the administrative level, presidents and business officers invariably participate in budget planning and operation. Department heads often are consulted or given an opportunity to make statements in behalf of their program. In most private colleges (and probably in the public institutions also) participation by the general faculty and staff is extremely limited. This is a significant omission in view of the important rôle played by the general personnel in carrying forward the program of the institution.

Wide participation in budget preparation is not sufficient in itself. The budget process must be carefully arranged to procure constructive service and not alone to have participation for the sake of a democratic appearance. One study has shown that unplanned participation of faculty budget committees and extremely wide budget participation in group meetings most

often are associated with institutions that have mediocre academic programs.

It is likely that the budgetary contributions of the general faculty and staff may best be made in the preparation of special studies. These can be undertaken at appropriate times throughout the year and thus establish a reservoir of information useful in budget considerations and in other situations as well. A college budget program would probably be improved materially if it could be supported by data assembled in studies such as the following:

1. Statement of college aims and objectives
2. Statements of departmental aims and objectives
3. Program of faculty salary, rank and tenure
4. Long-term program

In the area of control, there is growing recognition that the business officer cannot do the job alone. Effective control requires the participation of each person who has any responsibility to make decisions that involve finances. As someone said, control is coming to mean correlation of several controls rather than a superimposed control. Continuous budget control by department heads is, then, an important feature of efficient management.

Control must be based upon adequate information. In this connection, my recent study of budgeting in private colleges revealed sharply divergent opinions regarding the quality of financial data supplied by the business office to operating heads. College

business officers themselves had a high opinion of their financial reports. The opinions of department heads were not nearly so reassuring. Particularly significant was the observation that in most cases the financial data supplied department heads were highly regarded only by the recipients in the institutions with superior academic programs. Even when allowance is made for the difficulty some department heads have in understanding and using financial reports, there still is little doubt that inadequate financial reports contribute to inferior financial management. This, in turn, is reflected in an educational program that fails to attain desirable standards.

While the college president should take the initiative to extend the functioning of the budget as an aid in wise program determination, the business officer has his own responsibility in this area. The business officer usually possesses skill in the development and practical application of statistical techniques and knows how to arrange for the orderly assembly and presentation of useful information, particularly when it is to clarify matters of predominantly financial import. He has mechanical devices and skilled operators available for use on appropriate parts of the data assembly job. The business officer should not neglect his duty to initiate the assembly of information needed for appropriate budgetary considerations.

BUDGETING BUILDS MORALE

High morale throughout the institution encourages efficient utilization of resources. The budget affords an excellent opportunity for development of faculty, staff and administration morale. It is, however, a delicate operation. Interest in finances must be stimulated, but basic program concepts must not be impaired. To achieve this objective, the budget process should be democratic.

Department heads probably are sensitive to the negative approach of much budget programming. It may be that this is due to their lack of participation experience in financial matters. It is likely that department heads have reluctantly accustomed themselves to a large measure of dictation in financial matters.

The business officer should observe carefully the functioning of the budget in order to know the degree of its effectiveness in morale building. The business officer has numerous oppor-

tunities to observe, at firsthand, how the planning, control and evaluation of the college program are affected by the flow of financial information and the impact of purchasing and other business services. Moreover, the business officer is in a position to act daily in many little ways to implement favorably the morale influence of the budget program in his institution.

The business officer is a key figure in the college budget program. He serves in a line capacity to assure specific operational compliance. He has a further responsibility as a staff assistant to the president to advise competently on many matters because of his extensive contacts throughout the institution. The authorities and responsibilities associated with these line and staff assignments may become confused, despite the good intentions of the business officer and his associates. It is important that the business officer be alert to these areas of possible misunderstanding and that he direct his activities in ways that contribute positively to a coordinated institutional program.

SUMMARY

Colleges generally recognize the value of budgets and they undertake programs of planning and control that they hope will assure maximum effectiveness in the use of their resources. Budgeting in a college is sometimes not the cooperative effort it might be. Consequently, the policy making responsibilities of the board of trustees may not always be significantly discharged; administrative duties of college officers may be neglected, and the knowledge and judgment of faculty and staff may be overlooked in program planning. When the program of budgeting is well organized and all institutional personnel contribute the services they can reasonably render in budgeting, it is likely that staff morale is strengthened.

The business officer has broad opportunities and major responsibilities in budgetary matters. He is in position to observe his institution's overall operations through its financial program. He can contribute substantially to the refinement and extension of budget services. If he serves effectively, the business officer helps assure the financial stability of his institution and at the same time strengthens the democratic budget process through which the major educational objectives may be attained.

Speaking of presidents*

NOT MANY ARE THAT WAY

FRANK A. BEU

President
Western Illinois State College
Macomb, Ill.

THEY SAY A NEW EXECUTIVE ALWAYS wants more help, new furniture, new procedures, and more money. These things are no more true than Mrs. Brooks' impression* of college presidents. She is honest in admitting she knows very few but is perfectly willing to state her impressions as being a general rule.

In my experience with several thousand college presidents over a period of 20 years in all types of institutions (private, public and military) of all sizes, I have gained quite a different concept. To a major extent the present-day college president delegates to committees, to advisory councils, to department heads, and, in large institutions, to architects and engineers the operation, functioning and plans for the institution.

PRESIDENT REPRESENTS FACULTY

Few, if any, presidents today think of themselves except as an individual who represents the faculty in direct contacts concerning its various problems and the growth of the institution with the board of trustees. Naturally, the board of trustees expects that the president in turn will relay its policies, desires and wishes in regard to the institution to the faculty and will see that these are carried out insofar as funds and facilities are available.

The average college president is no different from any other faculty member, except he might be more inclined

to have the businessman's attitude toward the personnel and the problems that he has to deal with than would the academic professor, who is primarily interested in his own field of instruction.

ERRONEOUS ASSUMPTION

In regard to individuals who are emeritus faculty members and retired but who no longer live in the community and do not participate in the activities of the college or of the community, again Mrs. Brooks' assumption is erroneous. In our own institution, which is not more than 200 miles away from her location, she would find that the retired president has lived in the community for the 10 years following his retirement and is active in all community affairs, takes part in our graduation activities and exercises, and attends national meetings and speaks on national committees in the field of education. All of our emeritus people take part in the graduation exercises or any other college activities in which the faculty functions as a unit. About the only exception is faculty meetings; none of our emeritus staff attends faculty meetings.

I am sure that other college presidents join with me in extending to Mrs. Brooks or any individuals who may have her concept of a college president an invitation to visit our college campus. Such a visit would help to give her a different point of view than the one she expresses in her article concerning college presidents. The ideas and point of view expressed may have been true 25 years ago.

*Brooks, Harriet S.: How They Get That Way, College and University Business, April 1952.

Howard has a **HANDBOOK ON PURCHASING**

*A guide to preparation of requisitions and reports
on goods and services received by using departments*

PROCUREMENT AND SUPPLY MANAGEMENT, in its broad concept, is the term applied to the administrative activities involved in procurement of materials, supplies, equipment and contractual services. In actual operation, it is successful in proportion to the effectiveness of the purchasing cycle.

In the accomplishment of this cycle, everyone has to be satisfied—the requisitioning or using department, the purchasing department, the paying office, and the vendor. The relationships of these divisions are interdependent to the extent that each one is expected to observe established business procedures.

The problem of communicating adequately to the using or requisitioning departments those business procedures required for smooth operation toward procurement of their requirements is common to all colleges and universities.

There have been attempts to solve this problem by the use of various devices, such as regulations, directives, office orders, individual communica-

tions, and group conferences. These tools or devices have served a purpose but in the light of frequent personnel turnovers, they do not adequately fill the need of a guide to which ready reference may be made.

The best organized purchasing department, with its internal procedures carefully planned, must have understanding and cooperative departments that will see the necessity for coordinating their own procedures to conform with buying procedures; otherwise the using departments will not receive maximum service and value.

A handbook of purchasing procedure offers a guide to departments in the preparation of requisitions and reports of goods or services contracted for by that central agency, the purchas-

ing department. It enables those in the operating divisions of research, instruction, maintenance and other services to refer quickly to any purchasing department procedure and thus to learn how their needs may be efficiently and economically met.

At Howard University, a handbook of purchasing procedure has been developed to assist its 11 schools and colleges and its noninstructional and service departments with purchasing and procurement activities.

There has been no attempt to set down the policy of the institution in this booklet, but it does spell out the procedures in the commitment and expenditure of government, research and other university funds. Its purpose primarily is as a guide for operating personnel whose duties include

LAWRENCE L. WHALEY

Purchasing Agent
Howard University, Washington, D.C.



Lawrence Whaley
and his staff in
conference on the
purchasing handbook.

preparation of requisitions for department heads.

Our handbook is couched in simple, nontechnical language, so that new employees may easily digest the instructions. Members of the purchasing staff helped compile it. As its preparation continued, the various sections were edited and sent to the chief business officer for final approval. It took several months to gather information from previous regulations, directives and circulars, and to prepare the graphs, exhibits and flow charts, which help the reader visualize the written instructions.

The requisition, which is the using department's original expression of its requirement, is illustrated by an exhibit, carrying details of instruction on each point to be considered in its preparation. Special emphasis is given in the handbook to the need for a complete description, and, if necessary, the performance requirements to complement it. Departments are prone to take a catalog number and simply mention a desk, a chair, an air compressor, or to submit an item by a trade name, or by an insufficient description.

Each department is instructed to file with the requisition any and all estimates that may have been received. The time of need is an important factor in negotiating contracts, and departments are requested to state a specific date rather than "as soon as possible," "immediate," or "at once." "At least 30 days" is stated as the average time that should be allowed for processing and delivery. On this point, anticipation of requirements is stressed in order to make possible the most economical and efficient transactions, which include the routine handling of the requisition, the procuring of bids when necessary, the issuance of the purchase order, and time for delivery before the need becomes acute.

In these days of short supply and priority requirements for instructional and research materials, and for repair and operating supplies, anticipation of needs is highly important. Genuine emergencies do arise and these are given preferential treatment.

No individual has the authority to enter into purchase contracts or in any way obligate our university for an indebtedness unless he is specifically authorized to do so by the board of trustees, the president, or the business manager. Even if a particular problem is discussed by the depart-

HOWARD UNIVERSITY

REQUISITION

(See Instructions on Reverse Side)

EXHIBIT 1

Date _____

Please furnish for official use of _____ Department _____

For delivery to room _____ Building _____ Address _____

Suggested Source of Supply or Payee _____ *If source is known, full address must be given in this space*

Material, or service, needed by _____ (Name) _____ Prices taken from _____ (This information must be given)

ITEM NO.	ARTICLE OR SERVICE (Specify Name, Quantity, Unit)	QUANTITY	UNIT	PRICE	
				ESTIMATED UNIT TOTAL	ACTUAL UNIT TOTAL
1	For each item ordered from Mandatory Sources the item No. must be shown in this column	Give full details or specifications and other particulars for any item or service desired.	Show quantity & unit, viz. 12.....ea or 2.....dog	Show all prices in these two columns	Show full name of Supplier
	Show room number material is to be delivered or services to be rendered.	Show name of building material is to be delivered or services rendered. Show street address material is to be delivered or services rendered.	Attach quotation secured or give catalog number and date or Federal Supply Class number. If quotation is secured by telephone requisition must show person's name who gave price, date and terms of delivery.		

USE ESTIMATED COLUMN ONLY — Show total of the Requisition

Appropriation: _____ Order No. _____	Dept. Symbol _____ Reg. No. _____
BUDGET DEPARTMENT MEMORANDUM: O. K. Sufficient Funds _____ Date _____	Account to be Charged _____
Other Remarks _____ Budget Officer _____	Requested by _____ Head of Department or its Charge _____
Approved for Purchase _____ Approved for Payment _____	Approved by _____ Chief of Administrative Office _____
Price verified by _____ Date _____ Purchasing Agent _____	

Attach estimates, if any, to this requisition. For service of office information on requisition. Where office source is the source of office information on requisition. If not available on Government records, attach quotation. If not available, give justification for emergency or for purchase of material outside contract.

Page from the handbook on purchasing

ment head with the president or the business manager, and if approval is obtained, the purchasing agent must be informed so that a purchase order may be issued and all documents handled in the routine fashion.

Our handbook gives procedural instructions relative to price requests, reports of damages, shortages, containers and shipping papers received in a requisitioning department. It contains a glossary of common business terms and abbreviations that may not be familiar to many persons outside of a business office.

SOURCE OF REFERENCE

To sum up, a handbook of procedure provides a uniform and coherent plan that, if carried out, will assist in maintaining good will with vendors and will effect quicker and more satisfactory service. It clears misunderstandings between the control and operating units of the business area

and those of the operating units of the instructional and noninstructional divisions of the institutions. It furnishes a set pattern for the employee to follow; it facilitates purchase action and, finally, is a source of reference for in-service training.

While the handbook of purchasing procedure does not provide all the answers, its inauguration is a definite advance toward the solution of many problems of management in the procurement field. In the few months it has been used at Howard University, our handbook has had remarkable results in saving time through reducing the number of inquiries, as answers to these questions readily may be found. Supplements are issued from time to time as the occasion requires, with additional information or changes.

A copy of our handbook is made available to each department head and every member of his staff.

Increasing food service efficiency

and morale through

WORK SIMPLIFICATION

MARY L. SMULL

Professor of Institutional Management
Kansas State College, Manhattan

BIG KITCHENS ARE BIG FACTORIES. Many employees, much time, and many motions are involved in their function. Each of these three has monetary value. The alert administrator of an institutional kitchen today makes use of the relatively new tool, "work simplification," in order to realize the greatest value from various combinations of time, employee and motions. His success in this endeavor helps to curb the rising labor cost and to maintain high personnel morale.

Employee interest and cooperation are desirable in making work simplification studies and in putting desired changes into effect. Technics and detailed instructions for making work simplification studies are available to administrators through many magazine articles and texts. Although most of the published studies were made in the field of industry or factory management, the same principles and technics can be applied effectively in the institutional kitchen.

Equipped with technics for making work simplification studies, the administrator is faced with the problem of obtaining personnel cooperation. Slides, motion pictures, models, lectures, demonstrations, written discussions, and illustrative materials often are used to attract attention and to sustain interest in the desired changes.

One device that has proved effective in establishing interest and obtaining cooperation is the "travelgram." It does not represent either time involved or occupation of the worker during the travel route. It does show the distance and direction traveled during a work operation. Travelgrams are easily and quickly made and furnish a graphic record for future study. They suggest to other workers the possibility of saving steps and relieving fatigue.

Travelgrams presented here were made on the operation of setting two

tables for dinner service in a residence hall. Although the travelgram was the immediate visual aid used to enlist the interest of the employees, all of the principles and technics of motion and time economy were used during the study. Primarily, the procedure used in making travelgrams is:

1. Determine a segment of work to be examined.
2. Construct a process chart or step-by-step description for the present method.
3. Prepare two scale drawings of the work area with stout pins inserted at points where direction of travel changes.
4. Allocate numbers to pins on the drawing.
5. Place a measured string around the pins on one of the scale drawings indicating the path of the worker as outlined in the process chart.
6. Determine the improved method and construct a second process chart.
7. Place string on the second scale drawing as in Step 5.
8. Calculate the decrease in travel distance as indicated by the difference in the length of string used in the original and the improved method.

HOW IT WORKS

Travelgrams 1 and 2 are the drawings made to scale of the floor plan of the work area where the setting of the two tables was studied. The pins or strong supports were placed at points where change of direction occurred. These points were numbered to facilitate recording the travel route. A measured string was placed around the pins to show the route of the worker. The length of any unused string was subtracted from the original length. The distance traveled was calculated by multiplying the

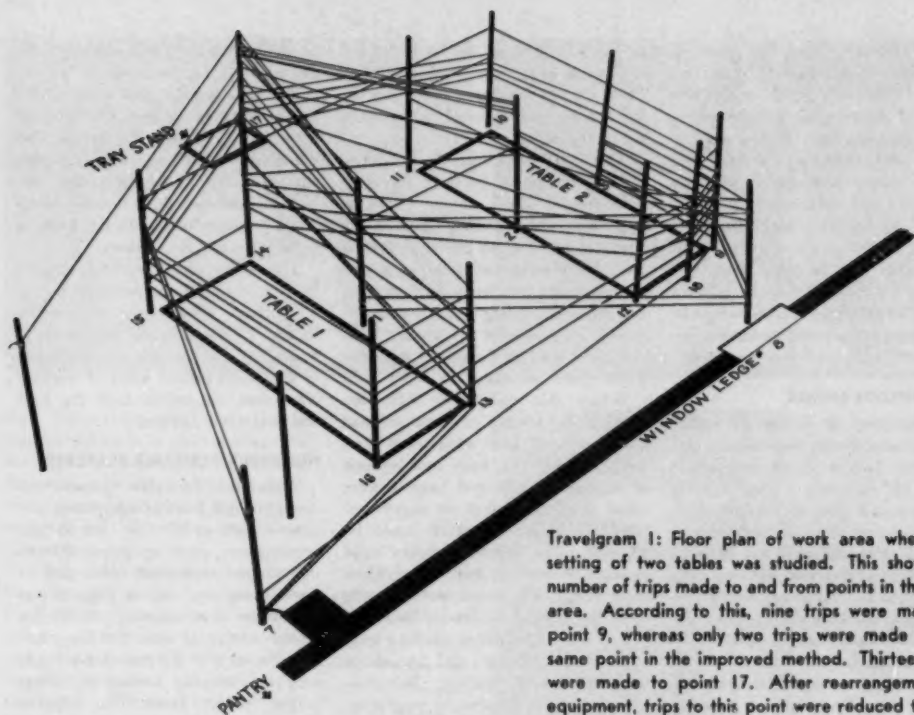
length of string used by the scale of the floor plan.

The string at the base of the pin represents the beginning of the travel route. As the travel progressed, the strings were placed higher on the pins to represent the sequence of trips to a given point. The number of strings placed on the pin indicate the number of trips to a given point.

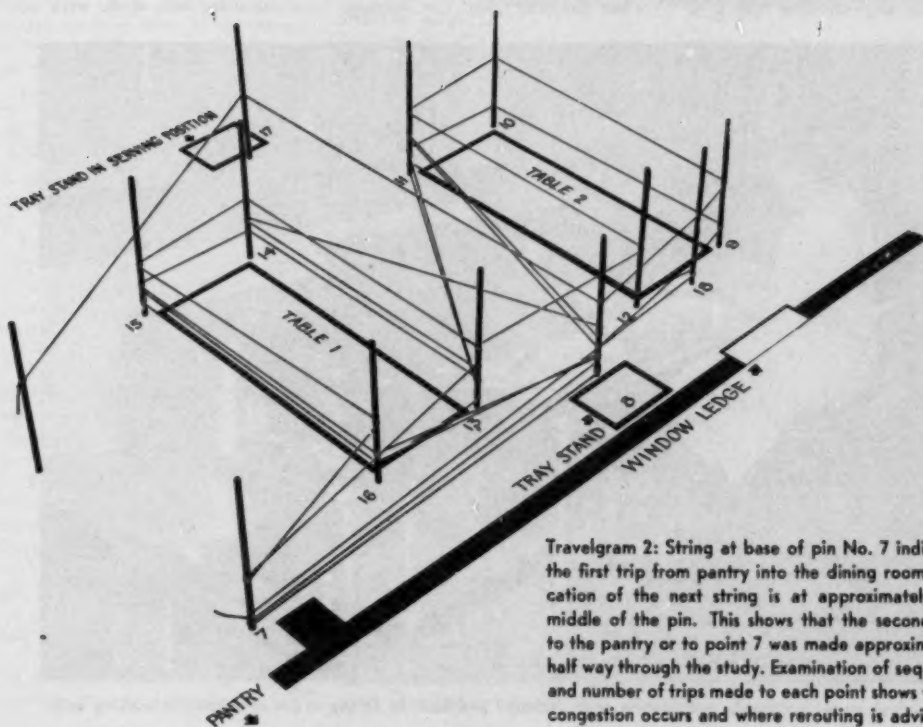
For example, in Travelgram 2 the string at the base of pin No. 7 indicates the first trip from the pantry into the dining room. The location of the next string is at approximately the middle of the pin. This shows that the second trip to the pantry or to point 7 was made approximately half way through the study. Examination of the sequence and the number of the trips made to each point shows points at which congestion occurs and those where rerouting would be advisable.

Travelgram 1 shows the number of trips made to and from points in the work area. According to this, nine trips were made to point 9, whereas only two trips were made to the same point in the improved method. In Travelgram 1, 13 trips were made to point 17. After a rearrangement of equipment, the trips to this point were reduced to one. These improvements shortened the walking distance and reduced congestion.

The difference between the travel distance in the original method and in the improved method is 392 feet. This figure was obtained by subtracting the length of string used in the improved method from the length of string used in the original method and multiplying by the scale used in drawing the floor plan. Approximately 50 per cent of the travel distance, or 392 feet, is saved in the improved method. In terms of money this would result in a saving of 9.3 cents each time two tables were set. This is based on an employee wage of 70 cents per hour



Travelgram 1: Floor plan of work area where the setting of two tables was studied. This shows the number of trips made to and from points in the work area. According to this, nine trips were made to point 9, whereas only two trips were made to the same point in the improved method. Thirteen trips were made to point 17. After rearrangement of equipment, trips to this point were reduced to one.



Travelgram 2: String at base of pin No. 7 indicates the first trip from pantry into the dining room. Location of the next string is at approximately the middle of the pin. This shows that the second trip to the pantry or to point 7 was made approximately half way through the study. Examination of sequence and number of trips made to each point shows where congestion occurs and where rerouting is advisable.

and a cost of 1 cent for each 42 feet walked with a load.*

This effective visual travelgram method of showing the employee where he has traveled, first in the original method and then in the improved method, offers him proof that his weary feet can have relief if he cooperates in working out procedures that will eliminate travel. He begins to question why he went from this place to that. He is then in a frame of mind to cooperate in another work simplification study and to discuss improvement with his fellow workers.

SAVE EMPLOYEE ENERGY

Improvement in design of equipment to save energy expenditure and to prevent fatigue of the employee is usually an economy. The stainless metal vegetable preparation unit illustrated is an example of such equipment. It was designed and built to fit the needs of a specific working unit.

This unit is 110 inches over-all in length, not including the 14 inch drop shelf. It is built so that one-half of the work surface has a height of 34 inches, and the other half a height of 24½ inches. This makes it possible

to stand to work at the 34 inch level or to sit to work at the 24½ inch level. Each level is equipped with a sink. Both sinks are elevated 3½ inches above the work level.

There are openings in the work surfaces that may be used for drop deliveries of diced or cut fruits or vegetables, or for garbage disposal. A specially constructed portable cart is used for placing and holding a pan or can under the drop delivery hole and for transporting the filled can to storage or to another preparation unit. A hinged shelf on the end of the table when raised increases the work area.

Before this equipment was constructed the heights of work surfaces and depths of sink wells were carefully studied. In each case women of various weights and heights were asked to sit to work at an improvised table the height of which could be adjusted. The woman of stocky build required as much as three inches more table height for seated working area than the woman of slender build.

The sink at the lower working level is 3½ inches in depth and rises above the table level 3½ inches. This shallow sink allows a sufficient water supply for the preparation of root vegetables and small fruits. The additional

height affords comfortable posture for the majority of the workers.

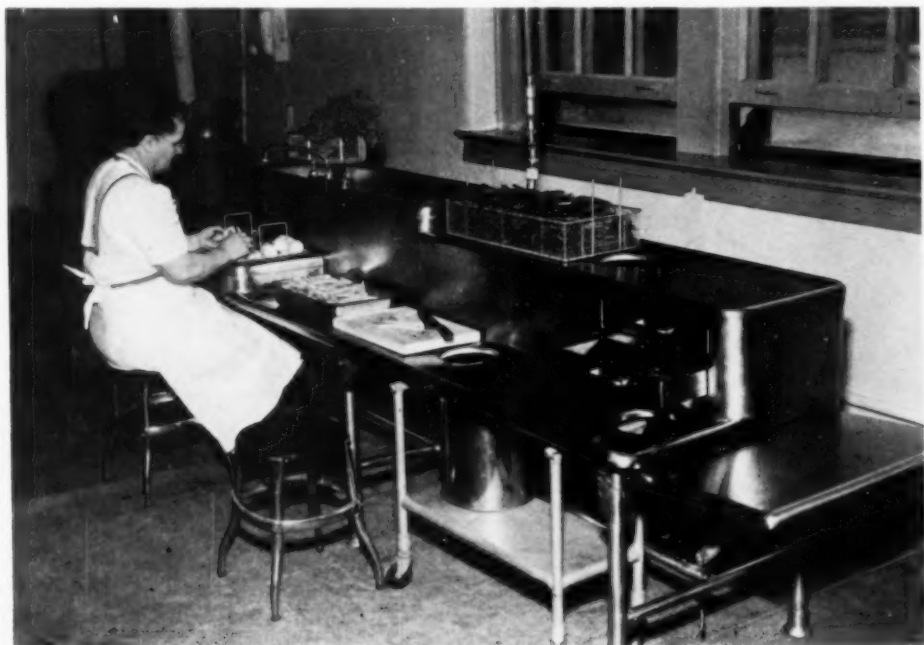
The sink in the higher working area is 13 inches deep and also projects above the work area 3½ inches. This depth allows for ample water supply for leafy vegetable preparation. But it is shallow enough so that the women of average height do not have to stoop to reach the bottom.

The width of all working surfaces in this vegetable preparation unit is 13 inches. Observation of workers indicated that little use was made of wider surfaces. In this case, the worker who needs greater width of working area often can utilize both the high and low work surfaces.

NUMEROUS DESIRABLE FEATURES

Additional desirable features included in this piece of equipment are: either right-to-left or left-to-right working area; small equipment drawers that can be used from either side of the working area; marine edges to prevent water from running into the lap of the worker or onto the floor; sufficient work area for two or more persons on working surface of either height; swivel faucet that supplies three sinks; an overhead water supply for use at any area of the work sur-

*Mock, R. D.: What It Costs to Walk, *Am. Rest. Mag.*, September 1948, p. 90.



Stainless metal vegetable preparation unit designed and built to fit the needs of a specific working unit.



1

face; lightweight wire baskets with handles and made in pairs or single for use interchangeably in any of the sinks for holding waste or moving vegetables; knee-action drains in the sinks, and type of construction to facilitate cleaning.

When the employees have been taught to sit to prepare vegetables and fruits and are assured that no criticism will be given because they are sitting and not standing while they are working, they appreciate and use the new equipment. The older employees need the most assistance and assurance in learning to work while sitting, although the relief from the discomfort of tired feet leads them eventually to use the lower sinks and work area.

This work unit has been effective for the situation for which it was planned. The various features included in the design might be modified to meet the individual needs of the workers and management in any type of institutional kitchen.

Employees who understand work simplification technics often apply them to work situations if emphasis is placed on the relief from fatigue. Time saving and increased production usually will be an indirect result.

The worker in Pictures 1, 2 and 3 illustrates this theory as she dips cottage cheese into small service dishes. She is using a high crock, a commonly used storage container, which, when it is set on a table of usual height, causes her to use the muscles of the entire body each time she fills the dipper. Her shoulder is raised and her arm is at an awkward angle. This can be corrected by placing the crock on a lower table, on a stool by the table, or by using a lower container.

The frequent practice of spreading all dishes on a tray forces the worker to reach across herself and to work in



2



3

1. High crock causes worker to use muscles of entire body each time she fills dipper. 2. Spreading all dishes on tray forces the worker to reach

across herself. 3. By use of low crock and by stacking dishes near the left hand, uncomfortable postures are avoided, thus helping to reduce fatigue.

an awkward position, Picture 2. Her left hand is idle, and she may drop food on other dishes.

The uncomfortable postures are avoided in the method used in Picture 3 by the use of a low crock and by placing the total number of dishes to be used per tray in a stack near the left hand. This eliminates, too, the process of spreading the dishes over the tray. It makes use of the left hand to balance motion. With practice it is possible to dip and place rhythmically, as follows:

1. Dip with the right hand and pick up the empty dish with the left hand.
2. Empty the contents of the dipper into the dish.

3. Return the dipper to the crock with the right hand as the filled dish is placed on the tray by the left hand.

A pattern for placing the dishes on the tray eliminates the necessity for seeking a location for the filled dish. This method of dipping requires some practice before it becomes habitual. Then its value is accepted and appreciated. The amount of time saved is

not appreciable but the elimination of the fatigue factor is recognized by the worker.

The principles applied in improving this method of dipping cottage cheese could apply also to such processes as dipping puddings, canned fruits, salads without underliners, ice cream or other similar foods. The employee is quick to see the advantage of the improved method and often applies these simple principles to other related tasks in his department.

Work simplification may be accomplished: (1) through the simple construction of a travelgram; (2) by the designing of new or redesigning of old equipment; (3) by the application of motion and time principles by the employee to simple repetitive tasks, (4) or a combination of these.

Relief of fatigue of the employee produces increased efficiency and better personnel morale, more productivity, and higher quality products. These are the result of improved use of time, motion and available personnel by the food service director.



LAWRENCE COLLEGE MEMORIAL UNION



MUSIC LISTENING ROOM

MEMORIAL UNION

at Lawrence College

RALPH J. WATTS

Vice President
Lawrence College, Appleton, Wis.

AT LAWRENCE COLLEGE, APPLETON, Wis., a Student Union has been constructed as a memorial to the alumni of the college who were casualties in World War II and in previous wars. Incorporated into the building were numerous facilities, including a grill, a lounge with adjacent music listening room, the memorial alcove, game rooms, and conference rooms.

The percentage of Lawrence students who commute is relatively small; nearly all of the 800 students board in the college residence halls. The grill, therefore, is designed primarily to meet the social requirements of students and staff for between meal and evening refreshments and provides fountain service, sandwiches, light lunches, cigars, and candy. The modern, artistic equipment chosen for this area is a distinctive feature.

The lounge with its fireplace supplies many needs: for informal visiting among students, parents, faculty, and alumni; for study; for receptions, and for formal dances.



LOUNGE

Adjacent to the large lounge is a music listening room with a generous library of varied records which may be played without other occupants of the building being disturbed.

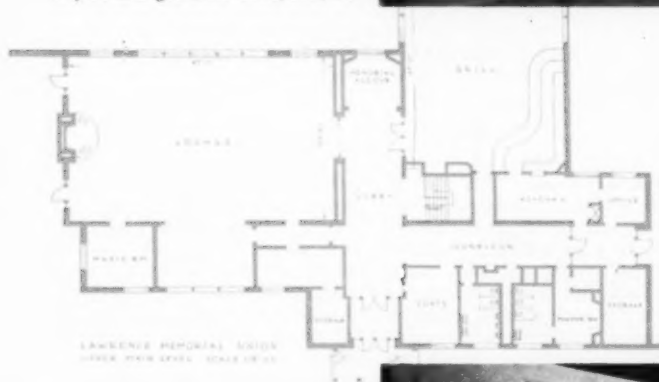
The memorial alcove is easily accessible at the terminal of the entrance lobby. Of simple, dignified design, it is equipped with comfortable seats; the names of the honored dead, with an appropriate inscription, are lettered in gold leaf on the wood paneled walls.

Other facilities provided on the main floor level are a conference room, coat room, telephones, office for the manager, supply room, and general services.

On the lower floor are areas for informal dancing, games (ping-pong, chess, cards), radio and television reception, arena style dramatic productions, and group meetings. Banquet service for from 400 to 500 guests may be arranged later. Here, also, are



MEMORIAL ALCOVE



located the mechanical devices required for the heating, ventilating and lighting of the building.

The Union is situated on the edge of a ravine overlooking the Fox River. From the insulating multiple glass windows of the principal rooms on the main floor, there is an inspiring view to the south.

At the river level a play field for informal athletic games is being developed; here also are picnic tables and fireplaces, thus contributing in a significant manner to the recreational center that the Union project represents. From the terraced hillside, spectators may watch the games below.

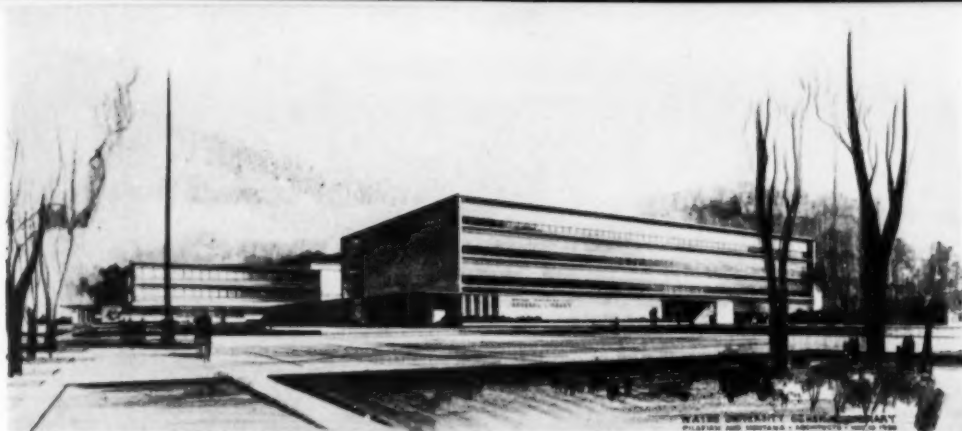
The building is of simple architectural design, of masonry and steel construction, with exterior walls of native limestone to match other buildings recently erected in the same area. The interior decorations have been artistically directed by the president, the

faculty, and students of the art department. The furniture selected is of modern design and of substantial manufacture. Wallpaper on limited areas, window draperies, rugs, upholstery, tile floors, and laminated plastic table tops have been chosen in colors that produce a harmonious and effective atmosphere of youthful gaiety.

This building project was undertaken by the alumni as a gift to the college at the celebration of its centennial in 1947. The total cost, including equipment, was about \$210,000.

GRILL





GENERAL LIBRARY WITH KRESGE SCIENCE LIBRARY IN BACKGROUND

Wayne University connects its

TWO NEW LIBRARIES

LILLIE MERIGIAN and EILEEN HALLBERG

Press Relations, Wayne University, Detroit

A LONG-AWAITED DREAM OF FACULTY, students and education-minded Detroiters will soon be realized in the form of two new library buildings, the Kresge Science Library and the General Library, now being erected to house and to centralize the numerous collections at Wayne University in Detroit.

The new structures will serve all the colleges and schools of the university except the medical school, which will have its own library.

The General Library, a four-story and full basement building, will contain the humanities, social sciences, education and law libraries of the university. The Kresge Science Library is an autonomous unit erected with the aid of a \$1,000,000 grant from the Kresge Foundation, but connected with the General Library at the first floor level.

The building programs submitted to the architects, Suren Pilafian and Frank Montana of Detroit, were the result of careful planning and much deliberation on the part of university officials as to the specific purposes and functions of the proposed buildings. Based on the premise that a library is an instrument for making recorded knowledge available to people according to individual needs, an outlined program was prepared that specifically stated the requirements for the successful conservation and dissemination of such knowledge.

This may sound rather academic and rigid. However, quite the contrary, the buildings were planned with

an eye to the future. The modular system of construction being used allows for economy of space and maximum flexibility through the use of uniformly spaced structural column supports. Thus, the functions housed in the buildings may be expanded, contracted or moved without major structural changes.

The exterior design of the two libraries is in harmony with the other new buildings on Wayne's campus in that most of the same construction materials were used: pink Mansota stone, gray brick, and aluminum, with the addition of some polished greenstone spandrels.

The structural frame of the Kresge Library is of steel and that of the General Library, reinforced concrete. Both buildings have reinforced concrete floors finished with asphalt tile throughout, except in toilets and stairways which are finished with terrazzo. The interior partitions are built largely of cinder block—plaster-covered where acoustic requirements dictate it.

GENERAL LIBRARY

Within each of the main divisions of the General Library—humanities on the second floor, social science on the third, and education on the fourth—a secondary subdivision by level of user is planned: stack areas, graduate

study alcoves, and individual study cubicles for research use on one hand, and study rooms, reading rooms, and study alcoves for curricular use on the other.

Also on the first floor are work rooms, administrative offices, reading and seminar rooms, staff lounge with kitchen, circulation service area, an information desk, public catalogs, and the Wayne Room—space to be utilized for exhibits by and about Wayne University students and personnel. The processing room is arranged so that the staff has convenient access to the same catalogs and biographical collections used by the public.

Facilities for receiving and shipping for both libraries will be provided in the basement of the General Library building. Photo laboratories, book repair and bindery space, storage stacks, and all mechanical apparatus and equipment also will occupy this area. In addition, provisions for a vault for valuable materials has been made. Basement area in the Kresge Science Library is limited to space needed for mechanical equipment.

KRESGE SCIENCE LIBRARY

In the first floor lobby of the Kresge Science Library, a strategically located circulation desk will serve and control the entire building. Space also is pro-

vided on the first floor for the staff offices, work rooms, and a large curricular reading and study area devoid of partitions so that it can be subdivided as the changing needs of the library require.

The western part of the first floor will be devoted to a group of spaces accommodating the needs of off-campus scientists. These consist of a lecture hall with 130 seats, a reception room, work rooms, and offices. This area is arranged so that it may be used when the rest of the building is closed. The check rooms and toilets of the first floor have been conveniently located within this area, but near the lobby, so they may be used independently of the rest of the building.

The second and third floors are virtually identical, accommodating together four seminar rooms, 28 faculty

study desks, enclosed reading rooms, and undivided stack areas.

GENERAL ARRANGEMENT

Particular care has been taken to arrange all spaces in the buildings so that the students and public can find their way about with ease. The space arrangement also assists the staff in supervision and control. Entrances and exits have been planned for the most efficient possible control during rush periods.

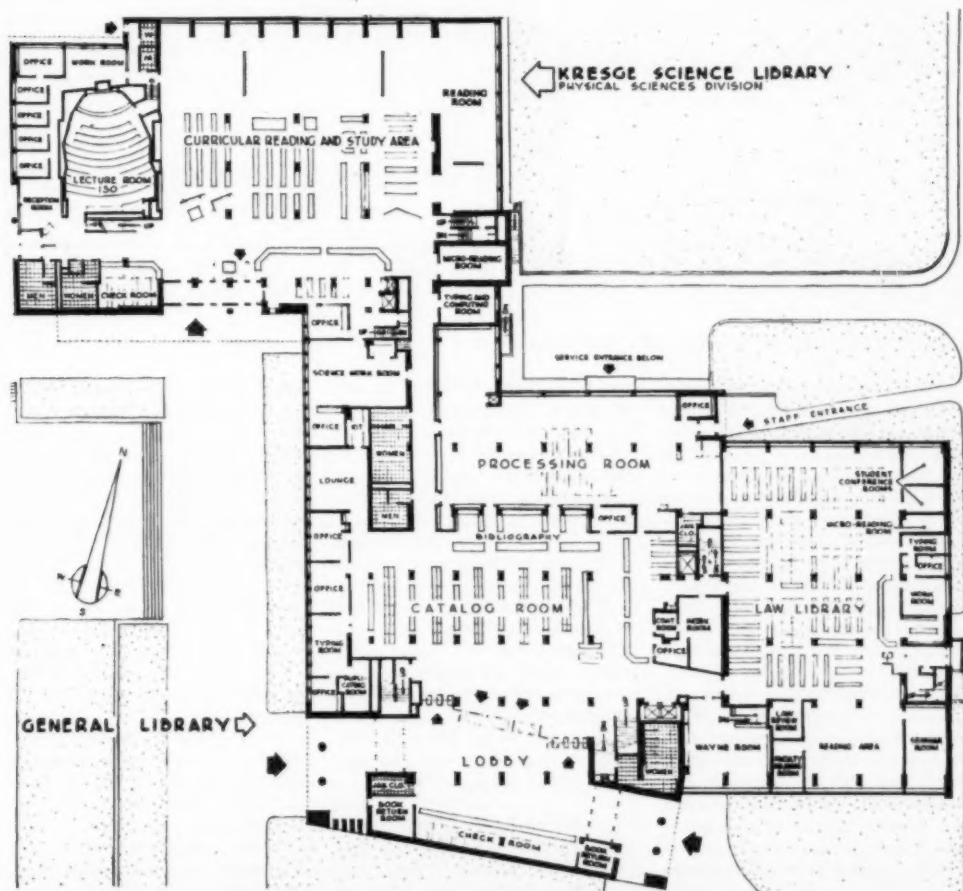
CONSTRUCTION AND EQUIPMENT

A number of unusual construction features were planned for these completely fireproofed buildings. A heating and cooling system never used before in a library in Detroit will be installed in the General Library. Along the outside walls of the building, there

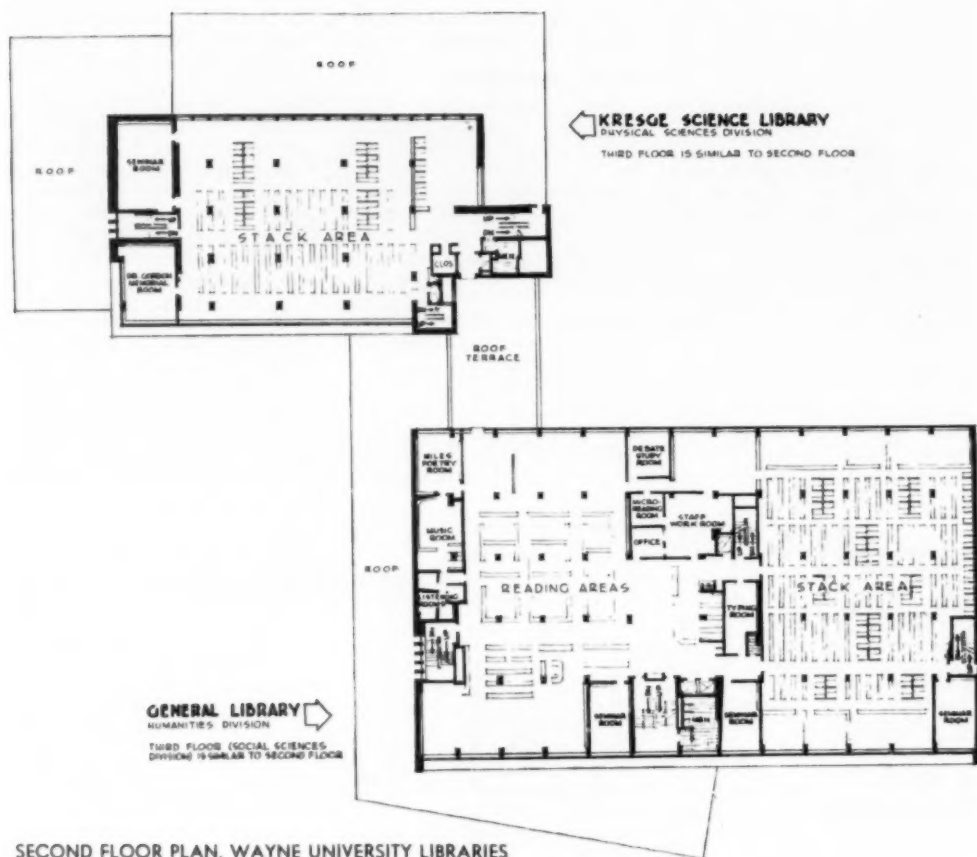
will be individual recessed air-conditioning units that will be supplied with both cool and warm air from a central source and that will mix and discharge the air into the room as required. Providing ventilation and regulating humidity, this system will fully air-condition and cool the General Library building. Eventually, a cooling system will be installed in the Kresge science building as well.

Fixed aluminum windows are another feature of the two structures. Key-locked handles will be put on a few windows so that they may be opened only when a small part of the building is being used.

On the south side of the Kresge Science Library, the objectionable glare of sunlight has been considerably reduced by the use of concrete visors. These visors also provide a ledge for



FIRST FLOOR PLAN, WAYNE UNIVERSITY LIBRARIES



SECOND FLOOR PLAN, WAYNE UNIVERSITY LIBRARIES

the use of window cleaners, who might otherwise have difficulty setting up ladders on the ground below, which is the main entrance to the building. All persons using the entrance are protected from inclement weather by an overhanging superstructure. A covered terrace along the west side of the building protects the west entrance and in the future will provide a covered walk between this building and other projected buildings.

Used for the first time in a Detroit building, many of the ceilings in the General Library building will be of acoustical units with exposed metal panel frames. Integrally formed with these panels will be fluorescent lights with exceptionally wide plastic diffusers to create the low brightness and high intensity lighting desired. Luminous ceilings have been used in the principal reading areas of the Kresge Science Library. All staff work areas have indirect fluorescent fixtures.

Both libraries will have a modern call system. Pneumatic tubes — the kind used in department stores for transferring money — will be used to send a numbered call slip from the circulation desk to the division of the library where the needed book is located. The book will be sent then to the main desk by a book conveyor and the borrower's number immediately flashed on a sign to indicate that the book is at the desk.

Additional features of the General Library include refrigerated drinking water; two public elevators and one serving the stacks; loading and book lifts, and turnstiles just inside the main entrance to assist the checkers stationed at this point.

LOCATION AND CAPACITIES

Planned as an integral part of Detroit's rapidly growing cultural center, of which the university forms the largest unit, the libraries will serve

visiting scholars and industrial research workers in addition to Wayne's student body.

Provision has been made for a capacity of 600 readers and 135,000 books in the Kresge Science Library. The General Library will accommodate 1600 readers and 429,000 books initially.

Floor area of the Kresge Science Library is 48,776 square feet and the gross volume amounts to 723,000 cubic feet. The General Library has a floor area of 153,608 square feet and a gross volume of 1,950,000 cubic feet.

The \$1,000,000 Kresge Science Library is expected to be ready for occupancy this month, and the General Library by the spring of 1953. Estimated cost of the General Library is \$3,000,000, which is being financed by appropriations made by the city of Detroit through the board of education.



Western State College plans a building for

HEALTH and PHYSICAL EDUCATION

FOR SEVERAL YEARS A MOST URGENT need of Western State College of Colorado in Gunnison has been a new building for the physical education program. The existing facilities consisted of one ancient gymnasium with a playing floor of less than standard college dimensions, which required padding of walls and columns to prevent injury to the players. Spectator areas were insufficient for intercollegiate contests; in fact, seats were available for little more than half of the student body of approximately 700. Locker and shower facilities were ridiculously inadequate and office and classroom space was nonexistent. All sport activities for men or women had to be conducted in this one area.

In setting up a program for new facilities, it was realized immediately that a compromise would have to be made between the ideal building and that which the available funds would

PAUL ATCHISON

Atchison and Kloverstrom, Architects
Denver

purchase. It was decided, therefore, that the new building should be planned from the first for future expansion and that those facilities which were built should be adequate not only for present needs but for future growth. It was obvious that the separate women's gymnasium with adjoining lockers and the swimming pool would have to wait. When these facilities are provided, one group of men's lockers and one women's locker room will have to serve the gymnasiums and the pool to avoid duplication of plumbing and dressing facilities.

Another consideration was the location of the new building. The existing quadrangle had reached maximum utilization, but space was available to the north. The college stadium lies

to the northwest and proximity of the new locker rooms was considered desirable. The land in the immediate area, however, was found to be of too great a slope to accommodate a building of this size without excessive cut and fill.

Consideration also was given to the future extension of academic facilities and a location finally was selected at the northwest corner of the campus, placing the new health and physical education building at the north end of a future quadrangle. This locates it to the west and slightly south of the stadium with east entrances to men's locker rooms not far removed.

This site, while not as steep as that first considered, slopes 6 feet in the width of the building. To use this site effectively a split level scheme was adopted, the women's lockers (for freshman men in the future) being placed one-half flight above the playing floor and the men's lockers one-

half flight below, both on the south side of the building, a distinct advantage for sun and air.

Provision of a large parking area for townspeople and visitors to the north and for main student access from the campus to the south dictated a foyer through the center of the building. This apparently cuts off access to the future swimming pool from the men's locker rooms but the split level scheme allows connection to the pool directly from the shower room on the lower level. The women's gymnasium and locker room are also at the lower elevation following the natural slope of the site.

The gymnasium itself is made flexible by the use of folding bleachers which permit dual use of playing

room is provided with an outside entrance opening to the practice field, which occupies the future quadrangle.

A physical treatment room for rub-downs and care of injuries is located in the locker area. The laundry for uniforms and towels, fully equipped with automatic washers and drier, is conveniently placed.

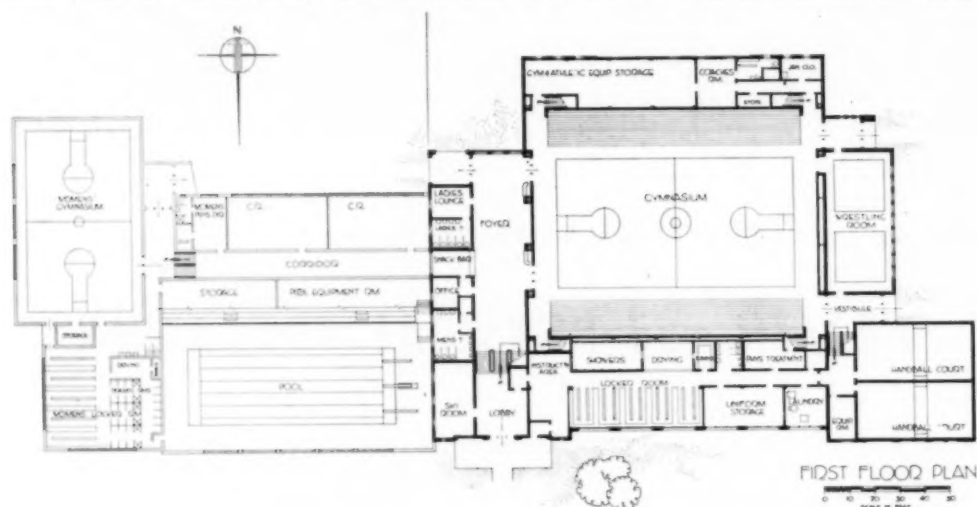
Visiting teams are provided with space on the upper level in the future freshman men's locker area, now temporarily assigned to the women students. Handball courts are enjoyed by students and faculty. A special room for ski enthusiasts (a major sport in this mountain area) is equipped for waxing and repair of equipment. The "W" club to be added in the future will provide a

Material throughout was selected for durability and ease of maintenance.

Exterior finishes were dictated by necessity of harmonizing with existing buildings. Walls are stucco with red Roman brick base and buff Roman brick trim. The roof is Spanish Mission tile over three-ply built-up roofing.

Heat for the building is supplied from the central college boiler plant, and mains were sized to carry the load for future academic buildings on the new quadrangle. Large areas are heated by unit ventilators providing a constant supply of fresh air, and all locker rooms are mechanically ventilated.

The building contains approximately 760,000 cubic feet and 31,700



floor when spectators are not present. Total seating for 2300 is provided in the folding and permanent bleachers. The area under the permanent bleachers has been used for locker rooms, offices, coaches' room, showers and storage. A broadcasting booth for the local station and a local network that carries conference games is conveniently located.

The room designated for wrestling serves a number of other uses, such as corrective physical education, dance, gymnastics and boxing. Classrooms are used for instruction in health and hygiene, as well as for courses for students majoring in physical education. Adjacent to the men's locker room is an instruction area for team use. Here plays are diagrammed and movies of games reviewed. This

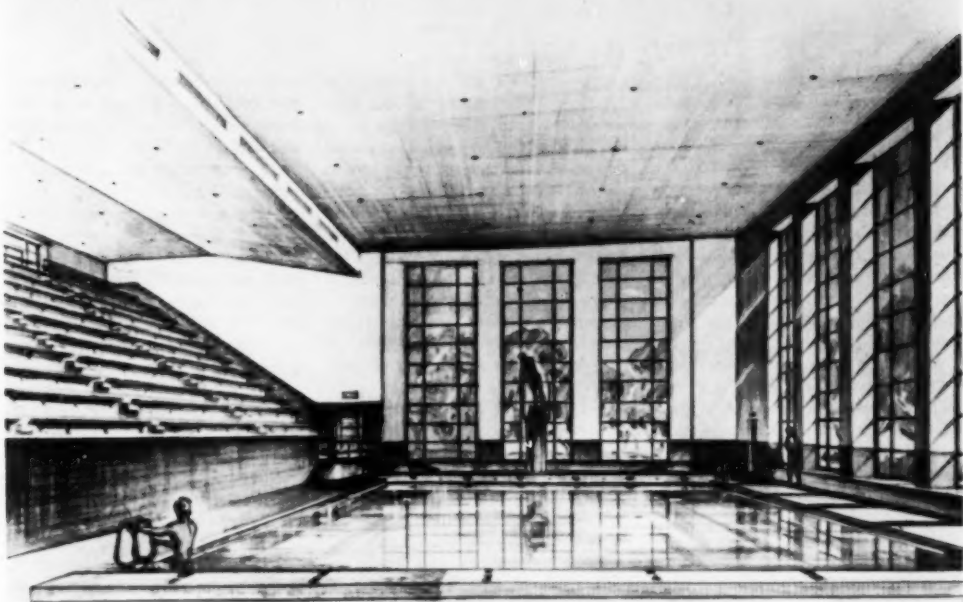
lounging area with sport journals, reading material, and trophy display.

Structure of the gymnasium is rigid steel frame with a clear span of 118 feet and a clear height at the center of the playing floor of 38 feet. Walls are lined with glazed tile to a height of 8 feet with smooth face brick above. The playing floor is maple. The area is amply daylighted by large areas of light-directing glass block in end walls and clerestories. Panels of acoustic tile applied directly to 2 inch T & G sheathing fill the spaces between the rigid frames. Artificial illumination is by high bay units equipped with patented disconnectors for lowering to clean fixtures and to re-lamp.

Floors in public areas are terrazzo and walls glazed tile. Locker rooms are tile lined and have cement floors.

square feet of floor area. The cost was about \$12 per square foot or \$0.50 per cubic foot, including the architect's fee but excluding equipment such as lockers and folding bleachers. Gunnison is not located on a standard gauge railroad and all materials must be transported by truck or transferred to narrow gauge railroad at a point many miles east.

The existing gymnasium is to be remodeled into a music building containing a large rehearsal room for band, chorus and orchestra, studios, practice rooms, and a music library. This will relieve the crowding of the main classroom building, which now houses the music department. When funds are available the health and physical education building will be expanded as planned.



THE NATATORIUM RECENTLY COMPLETED at Miami University, Oxford, Ohio, fills an important gap on the campus. The university had looked forward to the building since 1932 when plans to include a pool in the new gymnasium were laid aside for lack of funds. Postponement continued into the postwar years. Accumulated funds finally permitted construction of two pools—not as an appendage to the gymnasium—but in a separate unit devoted solely to aquatic sports.

The new building occupies a wooded area next to the gymnasium, a site reserved for it in the university's master plan. A swimmer standing on the deck of the pool may look out over the fairways of the university golf course and the hills beyond. The expanse of windows permits him to enjoy the pleasures of an outdoor pool in spite of the weather. The exterior echoes the style of the campus in a modified way; its red brick and Bedford stone trim blend with the Colonial architecture symbolic of Old Miami.

The main wing is 102 feet square. It contains an exhibition pool, spectators' gallery, and men's locker room. A one-story wing, 30 by 60 feet, houses the instruction pool. A third wing includes lobby and service facilities for spectators on the first floor; below are the offices, lockers for women, and a locker room lobby. Stairs from the entrance vestibule lead to this lobby. Inner doors of the vestibule may be locked to close off

TWO-POOL NATATORIUM

rounds out Miami's sports program

HERBERT F. HILMER

of Charles F. Cellarius, Architect
Cincinnati

"spectator" areas when not in use. Casual visitors who enter the building must then pass the desk in the lower lobby that guards the doors to locker rooms, offices and pools.

The exhibition pool is 42 by 75 feet. Used for both instruction and competition, it provides six lanes, 7 feet wide. The interior of the pool is finished in $\frac{3}{4}$ inch square white tile; the decks in a random pattern of sand colored tile. Gutters and recessed ladders are located in sidewalls only so the ends are free for racing turns. Backstroke start-grips are recessed in the ends well above the water line. The end walls extend 18 inches above the water to form starting blocks; the deck itself is 12 inches above the

water. Tile on the decks, starting blocks, and end walls contains abrasive material to prevent slipping.

Eight and 10 foot wide decks along the sides form generous working and loafing areas. The 15 foot wide deck across the shallow end is the main working deck of the pool. Entrances from the locker rooms open onto it. A wide window in the office controls this deck and the pool beyond.

Diving boards are at the opposite end of the pool where they will not interfere with class work. Here the deck widens into a semicircular bay containing one three-meter board and two one-meter boards. An underwater window, 18 inches high and 72 inches long, in the deep water permits the

coach to view swimmers at a level where form and technic are easily studied.

Thirty-foot high windows rise from deck to ceiling in the north and east walls. Windows in the south and west walls are small so the pool will be shaded in the afternoon for, although coaches appreciate getting away from the gloom of basement pools, they do not like the intense glare or the heat built up when the sun is too freely admitted.

A gallery seating 600 rises above the west deck of the pool. The steep slope ensures a clear view of all parts of the room. Spectators enter through vomitories from a concourse underneath. This concourse ramps down to the lobby, trophy lounge, ticket office, toilet and coat rooms.

The instruction pool is 20 by 50 feet; depth varies from 3 to 4 feet. The long narrow shape allows a large

class to line the side for instruction. The finish matches that of the large pool. Competitive features are omitted, however, and gutters extend around all sides to reassure the novice.

The wall between the pools folds away so they may be combined. Since separate classes of men and women, divided according to ability, will use these pools, this flexibility is needed to ease the headaches of scheduling.

The men's locker and team rooms are under the concourse. Toilets are provided in both the "wet" and "dry" areas of the room. Circulation is simple and direct to the pool through drying room and showers. A towel room controls the short ramp to the pool.

The women's locker room is only temporary. It will be turned over to teams and visitors when the proposed women's gymnasium and pool are built. The office of the women's in-

structor is elevated to control the entire room. To guard against accidents from unauthorized use of the pools, all points of entry are controlled. The main office guards the only other entrance to the pools.

Heating a swimming pool room is a tough problem. The system must warm the swimmer clad in trunks and cool the spectator in a "coonskin" coat. Convection adds to the problem. The spectator sits in the warm upper air; the swimmer in the cool lower air. To combat this effect, a radiant system warms the deck, cool air is diffused over the spectators, and warm air is withdrawn at the front and rear of the gallery.

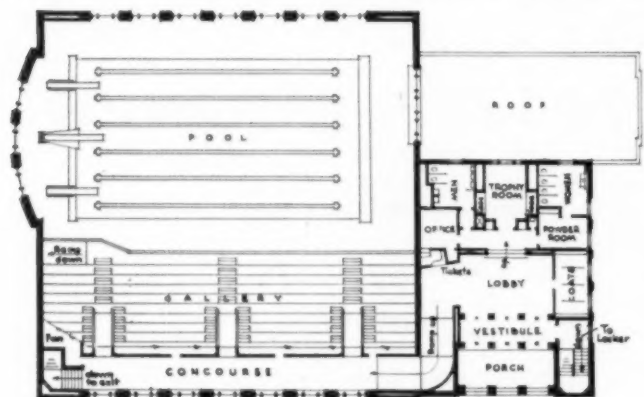
Humidity must be controlled to prevent condensation. The large windows are bathed with a column of warm air rising from the sills. Special insulating multiple glass windows and insulation built into cavity walls also reduce condensation. With the insulation made a part of the structural walls, the interior is faced with glazed block that is easily maintained.

Underwater and ceiling fixtures light the exhibition pool. Underwater units transform the water itself into a radiant source of light. Shielded downlights in the ceiling spotlight decks, gallery and diving boards only, so reflections on the water are reduced.

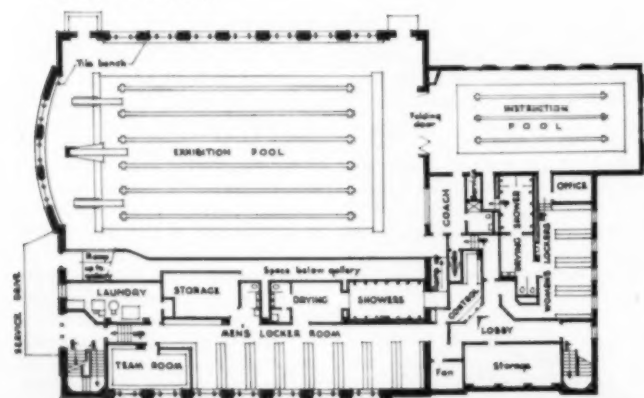
The filtration equipment is housed under the west deck of the pool and the front of the gallery. Its main elements are diatomaceous filters, chlorinator and alum pot.

All materials were selected for ease of maintenance and resistance to moisture. Floors are ceramic tile in "wet" areas, terrazzo in lobby and adjacent rooms, cement elsewhere. Walls are faced with tile block except in the entrance wing where lower humidity allows plaster. Pool and gallery ceilings are perforated asbestos cement concealing insulation pads; exposed insulated tile is used on ceilings of drier areas. All metal work, doors and windows are aluminum or stainless metal around the pools. Special concrete roofs, whose insulating value helps combat condensation, are carried on trusses in the main wing; on bar joists elsewhere.

Low bids received were: General contract, \$482,390, or 79.7 cents per cubic foot; heating and ventilating, \$56,300, or 9.3 cents per cubic foot; plumbing, \$59,600, or 9.8 cents per cubic foot; electrical work, \$31,935, or 5.2 cents per cubic foot.



FIRST FLOOR



GROUND FLOOR



THOSE TAX PROBLEMS

that are currently plaguing the colleges

T. E. BLACKWELL

Vice Chancellor and Treasurer
Washington University, St. Louis

THE REVENUE ACT OF 1950, ENACTED into law at the second session of the 81st Congress, and approved by the President on Sept. 23, 1950, marks a major milestone in the history of the tax problems of the colleges. For the first time, the general income of non-profit educational institutions was made subject, under certain conditions, to the federal income tax.

It is true, of course, that there have been other minor invasions of the sanctity of our exemption from taxation by the federal government. The imposition of the federal admission tax upon the price paid for admission to athletic events was probably the first contact many of us had with the long tax arm of the federal government. The withholding tax converted us into tax collectors for Uncle Sam. The social security tax was imposed upon us only with our consent and after the execution of a specific waiver of exemption.

Now, however, under the revenue acts of 1950 and 1951, we all must give careful consideration to the possible tax implications of many of our activities. We shall be forced to become quite familiar with the major provision of supplement U of the Internal Revenue Code, listed under the caption "Taxation of Business Income of Certain Section 101 Organizations."

Section 101 refers, of course, to that section of the code under which we have, in the past, been granted complete exemption from the federal income tax. The first income tax law enacted by Congress in 1913, after the adoption of the Sixteenth Amendment to the Constitution, granted exemption to corporations or associations organized and operated exclusively for religious, charitable, scientific or educational purposes on a purely nonprofit basis. Publicly controlled educational institutions enjoyed federal tax immunity as instrumentalities of the sovereign states, under a constitution prohibition, as then interpreted by the courts.

Endowed educational institutions claimed exemption from the federal income tax under Section 101 (6) of the Internal Revenue Code, as follows:

"Corporations, and any community chest, fund or foundation organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes . . . no part of the net earnings of which inures to any shareholder or individual. . . ."

The Revenue Act of 1950 imposed a tax upon the "supplement U net income" of certain of the nonprofit organizations formerly entirely exempt under Section 101 of the Internal Revenue Code. Supplement U net income is defined in the act under two separate categories, *i.e.* (1) "unrelated business net income" and (2) "supplement U lease rents."

WHY LEGISLATION WAS ENACTED

It may be worth while at this point to review the history of the development of the unfavorable public opinion that induced Congress to enact this legislation. We are all familiar with the rash of magazine articles on the subject that broke out in 1950. Witness the titles, "The Foundation Racket" in the *New Republic*; "Uncle Sam's Untapped Millions" in the *American Magazine*, and "The Abuse of Tax Exemption" in *Fortune*. According to the article in *Fortune*:

"Tax exempt companies — enterprises owned by 'trusts' and 'foundations' and religious, charitable, educational, labor and other organizations exempted from federal and local taxes — are depriving the federal government of hundreds of millions in tax revenue. They are competing unfairly with companies not exempt from taxes. Their receipts have been estimated at \$10,000,000,000 or higher.

"Perhaps the best known case is that of New York University. For its benefit an alumni organization owns

and operates the Ramsey Corporation of St. Louis (piston rings), the American Limoges China, Inc., Howes Leather Co., and the C. F. Mueller Company of Jersey City, well known macaroni, spaghetti and noodle maker. If the profits of these four companies were not going to New York University, they would together generate \$1,500,000 in federal taxes.

"The first large application of the sale-and-lease-back scheme to tax exempt institutions occurred in 1943, when Gimbel's sold its Philadelphia store for \$4,300,000 to Fidelity-Philadelphia Trust Company, a tax free institution whose beneficiaries include Cornell, Yale and the University of Rochester. One deal that has attracted much attention was the sale of Allied Stores, the nation's largest department chain, to little Union College. Union paid \$16,150,000 for Allied, but actually put up only \$150,000 and borrowed the rest from Prudential Life and the Guaranty Trust. Still another interesting department store purchase was that of the Lit Brothers' large Philadelphia mart by the University of Pennsylvania. The university paid only \$4,187,000 (the appraised value) for the store, which was down on the books at \$10,648,000. Lit charged \$4,475,000 of the \$6,461,000 loss against operating income (as a tax loss), charged the rest against surplus as a loss, and in effect thus realized \$8,662,000 in cash.

"Many of Safeway's stores and warehouses are leased from tax free institutions. Montgomery Ward, Sears, Roebuck, and Woolworth lease sites from various colleges, and only recently the much publicized building firm of Levitt & Sons sold its stake in 4028 new houses worth \$32,000,000 to Junto, a nonprofit school for adult education. . . . It was to the U.S. Wheat Corp., a charitable nonprofit organization capitalized at \$10, that Tom Campbell, the nation's biggest wheat farmer, sold his 65,000 acre grain ranch in Montana. The U.S. Wheat

Corporation is owned by the Sacred Heart Foundation Fund, which at least has elaborate plans for giving to charity."

The inferences drawn from the facts recited in this and similar articles probably were grossly misleading. Nonetheless, they had a substantial effect upon public opinion and upon the members of Congress.

For instance, on July 9, 1948, the *New York Times* published an article based upon statements by representatives of a commercial research laboratory group, in which it was charged that the land-grant colleges and universities "engaged in business operations netting millions of dollars annually on which they paid no taxes."

Apparently no one in higher education paid any attention to this ill-informed attack. However, about the middle of December of that year, the chairman of the ways and means committee of the House released the following statement:

"We have had no requests for time in connection with such hearings, which leads us to wonder if those activities which operate businesses in competition with private enterprise feel that the profits of such activities should be taxed."

It would seem from this that Congressmen feel that if an attack, no matter how ill-supported, draws no reply, the one thus injured is guilty. The Land-Grant College Association immediately requested permission to be heard. At the hearings, our representatives pointed out to the members of Congress that the \$22,000,000 of alleged "profits" referred to in the *New York Times* article must have been taken from the summary of the financial reports of the land-grant colleges, published in the Bulletin of Colleges and Universities by the U.S. Office of Education, and that these so-called profits represented the gross receipts from agricultural experiment farms, dairies, medical school hospitals and clinics, and university presses. When these facts were made clear to the Congressmen, their immediate response was that they would not consider the imposition of a tax upon such activities. Nevertheless, the damage to the public relations of the colleges had already been done.

For those interested in following the history of this problem in more detail, I would commend to their attention the "Testimony Before the Committee on Ways and Means on

Revenue Revisions in 1950, 81st Congress, 2nd Session (1950)," and "Hearings Before Committee on Finance, U.S. Senate, on Revenue Revision of 1950, 81st Congress, 2nd Session (1950)." These volumes may be consulted in any college law library.

Until the courts have had time to construe the provisions of the revenue acts of 1950 and 1951, we must look to the legislative history of these two acts as summarized in the published reports of the committee on finance¹ for guidance in our attempts to interpret what the wording in the new legislation really means.

NEW SUPPLEMENT U ADDED

As previously stated, Title III of the Revenue Act of 1950 added to the Internal Revenue Code a new supplement U, consisting of four new sections.² The purpose of these new additions to the code was to establish the concept of "Supplement U Net Income." This is defined as the amount by which the "unrelated business income" exceeds \$1000.

"Unrelated business income," as defined in the statute, includes two major categories: (1) the gross income derived from any trade or business the conduct of which "is not substantially related (aside from the need of such organization for income or funds or the use it makes of the profits derived) to the exercise or performance by such organization of its charitable, educational, or other purpose or function constituting the basis for its exemption under section 101,"³ and (2) that part of the gross amount of rental income derived from any supplement U lease. A supplement U lease is defined as⁴ "a lease for a term of more than five years . . . if at the close of the . . . taxable year there is a supplement U lease indebtedness . . . with respect to such property." Supplement U lease indebtedness we find defined as⁵ "the indebtedness incurred by the lessor in acquiring or improving such property."

Thus we see that Congress was concerned only with income derived from activities unrelated to the primary objectives of the tax free organizations.

¹ United States Code Congressional Service, 81st Congress—Second Session, 1950, Vol. II, Pp. 3053-3265.

² Internal Revenue Code Para. 421-424.

³ Internal Revenue Code Para. 422 (b).

⁴ Revenue Act of 1950, Title III, Part I, Section 423a.

⁵ Revenue Act of 1950, Title III, Part I, Section 423b.

In the case of income from the ownership of real estate, the act imposes a tax only if the property was acquired with borrowed capital and leased for a comparatively long term. Under the theory adopted by the lawmakers, a charitable organization that borrows money to acquire business real estate and immediately leases such property either to the company from which it was purchased, i.e. the "lease-back," or to a third person, clearly has changed its status from that of the passive recipient of income to that of an active participant in business.

There are three primary exclusions from this category of supplement U leases. The first excludes from the tax on lease-backs the "related" leases, that is those entered into primarily to further the purpose of the exempt organization rather than to gain special benefits from its tax exemption.

The second primary exclusion from the category of supplement U leases relates to property acquired by gift, bequest or devise before July 1, 1950, and which, at the time of acquisition, was already subject to both mortgage and lease.

The third exclusion limits the application of the supplement U lease tax where only a part of the property is rented out on long-term leases, i.e. for more than five years. Thus, no tax would be imposed if a substantial portion of the property is rented out on a short-time basis, and if the long-time leases were not concentrated in a small group of leaseholders. Such a pattern would indicate that there had been no attempt to trade on tax exemption privileges.

Since the whole philosophy of the unrelated business tax is to burden only those charitable organizations actively engaged in business activities, the statute excludes from unrelated business income all dividends, interest, annuities, royalties and rents that represent the passive recipient of income by an investor.⁶

Another source of income of non-profit organizations specifically excluded⁷ from the imposition of tax is the conduct of research for any instrumentality of the federal government or for any state or political subdivision. In the case of colleges, universities, hospitals and other organizations operated primarily for the

⁶ Internal Revenue Code 422(a) (1) (2) (3).

⁷ Internal Revenue Code 422 (a) (7) (8).

purpose of conducting fundamental research, the results of which are freely available to the general public, all income derived from all research is eliminated from the category of "unrelated business income."

WHAT IS UNRELATED BUSINESS?

The colleges have before them the unresolved riddle of determining what Congress meant by "unrelated business income." In the absence of court decisions, we must turn to the congressional reports for light on this very dark subject. The following is from the report of the Senate committee on finance dated Aug. 22, 1950:*

"For example, a wheat farm operated by an exempt agricultural college as part of its educational program would be considered a related business. Of course, income of an educational organization from charges for admission to football games would not be deemed to be income from an unrelated business, since its athletic activities are substantially related to its educational program. Similarly, in the case of a nonprofit hospital, where some patients are charity patients and some pay their own way, the income from patients in either category is considered related income and, therefore, not taxable. However, the manufacture and sale of automobile tires by a college would ordinarily be considered an unrelated business. A trade or business which is otherwise unrelated would not become related merely because some incidental use is made of the business facilities to further the exempt purpose. For example, the tire business noted above would not become substantially related even though some students as part of their educational program performed some minor clerical or bookkeeping functions. Nevertheless, an organization . . . engaged in the rehabilitation of handicapped persons would not be subjected to the supplement U tax on any income it derives from the sale of articles made by such persons since such business would be a necessary part of its rehabilitation program.

"However, the term 'unrelated trade or business' does not include any trade or business:

"(1) in which substantially all the work in carrying on such trade or business is performed for the organization without compensation. An example would be an exempt orphanage

running a second-hand clothing store and selling to the general public.

"(2) carried on by an organization . . . primarily for the convenience of its members, students, patients, officers, or employees. . . . An example would be a laundry operated by a college for the purpose of laundering dormitory linens and the clothing of its students. However, a laundry operated by a college apart from its campus primarily for the purpose of making a profit from laundering the clothing of the general public would be unrelated. . . .

"(3) which consists of selling merchandise, substantially all of which has been received by the organization as gifts or contributions. This paragraph was added in order to remove activities commonly known as thrift shops from the application of the tax.

"In determining whether the income of an exempt organization from a trade or business is subject to the supplement U tax, it is first necessary to determine whether it is income from a trade or business which is regularly carried on, or is income from a sporadic activity. If a charitable organization gives an occasional dance to which the public is admitted . . . this would not be a trade or business regularly carried on within the meaning of section 422.

"On the other hand, if an organization owned a race track, this would not be considered an occasional activity even though the track was operated only a few weeks each year, since it is usual to carry on such a trade or business only during a particular season."

The status of university press income is somewhat in doubt under the provision of the Revenue Act of 1950. The report of the committee on finance of the Senate, already cited, contains the following ambiguous statement:

"Income from a university press would be exempt in the ordinary case since it would be derived from an activity that is 'substantially related' to the purpose of the university."

We are left in the dark as to what the words "in the ordinary case" mean. Many universities publish works only remotely associated with their courses of instruction. If the press must prove that its publications are "substantially related" to the university with which it is associated, not merely to education in general, it might find difficulty in so doing.

The typical university press is organized as a separate corporate entity, even though closely related to the

university it serves. Hence, it might come under the provisions of the act relating to what have been termed "feeder" organizations. In an amendment made by the ways and means committee of the House, a new paragraph is added at the end of Section 101 of the code to the effect that an organization operated for the primary purpose of carrying on a trade or business for profit (other than the rental of real or real and personal property) shall not be exempt under Section 101 merely because all of its profits are payable to one or more exempt organizations.

No one could deny that the printing and publication of books could be termed a trade or business. However, the dissemination of knowledge by publication has been one of the recognized functions of universities for centuries, and it would be a gross anomaly if, in this Twentieth Century, university presses should be taxed on the same basis as a factory.

PUBLISHING BUSINESS EXEMPT

Under the provisions of the Revenue Act of 1951, income from the operation of a publishing business is exempt from supplement U tax even though it is in fact "unrelated business" income. This amendment, however, applies only to the taxable years beginning after 1950 and before 1954 [Sec. 422 (b)]. Such income will continue to be exempt even though unrelated, if, by the end of two years, the operation of the publishing business becomes substantially related to the exercise of the organization's tax exempt function. Thus, university presses are given a period of grace in which to bring their publishing activities into conformity with the educational program of the institutions they serve. We shall still have the unresolved question of how the Treasury Department and the courts will interpret the word "unrelated."

Under the Revenue Act of 1950, the supplement U tax did not apply to the unrelated business income of universities and colleges of states and local governmental units. However, the 1951 act extended the supplement U tax to income derived after 1951 from any unrelated business activities carried on by the tax supported institutions, including any "lease-back" income (para. 141) or trade or business of their "feeder" corporations [Code Sec. 421 (b) (1) (B)].

(To be continued next month.)

*U.S. Code Congressional Service 81st Congress, Second Session 1950. Vol. 2 Legislative History, p. 3165.



BUILDING MAINTENANCE

WENDELL M. TUTT

Treasurer and Business Manager
Simpson College, Indianola, Iowa

NOT ONLY FACULTY PERSONNEL BUT college administrators and other staff members as well should feel a deep sense of responsibility in the education of future citizens. In a church related college this responsibility takes on added significance as training for Christian citizenship is emphasized.

The performance of obligations toward this lofty goal should be of the highest quality, whether it is teaching Bible, economics, history and chemistry, or merely doing the unglamorous, humble, day-to-day job of operating and maintaining the facilities in which the teaching process is carried on. It should be with the realization that what we do and how we do it may have a significant influence in shaping a better world tomorrow.

FOUR PRINCIPAL OBJECTIONS

There are four principal objectives in a good building maintenance program.

1. *Set the Stage.* The faculty members are the actors; the students are the audience, and the buildings, grounds and equipment are the stage properties. Good maintenance sets the stage, operates the spots, backdrops and sound effects, and supplies the properties. From then on it is up to

the faculty players to put the story across to the student audience.

Good maintenance prepares the college plant each day to serve the purpose for which it is intended. This college plant, for the most part, consists of specialized, single purpose buildings. Maintenance must see that they are ready when needed to serve a specific educational or student service. It means heat, light, water, ventilation, clean surroundings, usable furniture and equipment, and numerous other services and conditions without which buildings cannot properly serve the students.

Good maintenance is good service to the educational program when and where needed.

2. *Make Them Like It.* Faculty and students want neat, clean, orderly surroundings in which to work and live. Not too many students select their college because of its buildings and campus. But the oldest buildings, if well maintained and cared for, will make a favorable impression.

We have a residence hall on our campus 61 years old housing 54 girls. Alumni and parents "groaned" with the thought of their daughters living in this drab, outdated dormitory. It was an obstacle we had to overcome in soliciting students. A year and a half ago we finished a complete interior redecoration and renovation job of all the rooms under the direction of a capable interior decorator and color consultant. We modernized the toilet rooms. The rooms were equipped with new Hollywood beds throughout, and we employed a full-time housekeeper to replace part-time student help. It was one of those "before and after" stories you read about in the national home magazines. As a result, student, parent and alumni comment has been almost overwhelming. Room

rates were raised 40 per cent and the building is operating at about the break-even point for the first time in modern history.

Good maintenance is an important part of a college public relations program. Buildings, campus and other facilities themselves make a strong impression on students, faculty and the public, but the best physical plant in the world, if poorly operated and cared for from day to day, can become an undesirable place in which to work and live. Good maintenance will help to keep the public sold on the institution.

3. *Watch the Cost.* What college business manager or treasurer is not under constant and heavy pressure to keep cost at the minimum? This pressure is particularly acute in the field of operation and maintenance of the plant. When budgets get out of balance and deficits need to be made up, the tendency is to begin retrenchment in operation and maintenance. It is easier, and at the moment, more expedient to take it out of maintenance than to reduce the educational program, but in the long run, it is costly.

Operating and maintaining the plant in good condition at the lowest possible cost is a real test of good management. It means doing the necessary and eliminating the unnecessary all for good reason. And management must be able to sell these reasons to the president, board of trustees, faculty and students through results obtained and sometimes through explanation. This builds the confidence of the president and board in the business officer and, to a certain extent, relieves pressure on the maintenance budget. But you must continually prove that you are doing the best job possible at the lowest cost.

4. *Look to the Future.* It is difficult

From a paper prepared for the Institute of Higher Education.

from a business manager's point of view

to raise money for repairs or replacements of old buildings; there is little glamour or thrill in an appeal to donors for this purpose. Consequently, it behooves management to set up a maintenance program that looks to the maximum preservation of the useful life of college properties. This important objective of good maintenance begins with the original construction of the building in insisting that materials are used that will wear well and maintain easily. It continues throughout the life of the building in normal repairs and upkeep. It is the reason for preventive maintenance, that is, periodic inspection of the properties to discover trouble spots and weaknesses that can be corrected before breakdowns occur. In the long run this saves money and adds to the life of the building.

How can a college achieve a good building maintenance program? The answer will vary to some extent with the size of the college, age and condition of its buildings, type of construction, adequacy of college financing, type of program, and other factors. But there are certain fundamentals vital to the maintenance program of any forward-looking college enrolling 400 students or more. I should like to mention at least six.

1. *Employ a competent and conscientious superintendent of buildings and grounds.* Be sure he understands his duties and responsibilities. I know of no training or experience that will completely qualify a man to handle every phase of a building superintendent's job on a college campus. No man can be an expert in construction, heating, plumbing, electrical work, ventilation, refrigeration, purchasing, custodial services, labor management, painting and decorating, furniture refinishing, public relations, and the



many other areas involved in the job. But if he is proficient in two or three of these areas and has a working knowledge of the others, the capacity and willingness to learn, and the ability to direct the work of others, his chances for success are good.

The superintendent should have the confidence of the college administration. He should be a man of pleasant personality, thoroughly cooperative and sympathetic with the program of the college. He should possess an understanding of human nature and a high degree of patience and tolerance. He should be thoroughly acquainted with all new construction, and he should be consulted on all problems that affect the college plant. All work orders should be channeled through him; by-passing the superintendent in the work program without his knowledge is bad practice. The superintendent is the key man in a good maintenance program.

2. *Employ the best staff obtainable at satisfactory wages.* Job assignments should be detailed and specific so that employees will know what is expected of them. Careful introduction to a work program and training on the job do much for the success of the employee and happiness in his job.

The selection of personnel capable of assuming responsibility is of great

importance. With 40 or 50 scattered work locations on a campus or within its immediate environs, it is impossible for a superintendent or a few foremen to give constant supervision to the staff. Management must look to the dependability and honesty of its workers to do assigned tasks on their own.

3. *Treat your staff members like human beings.* Unfortunately, on many campuses rank-conscious professional employees create a class distinction in the college family that is unhealthy for the total program of the institution. Maintenance employees become conscious of this distinction.

Maintenance employees are entitled to a fair wage for the work performed. Perhaps the level of salaries and wages of college employees is not comparable with that paid in industry and business but, nevertheless, groups of employees within the institution should not be treated unfairly.

Staff employees should be entitled to retirement benefits, vacations, sick leaves, hospitalization, life insurance plans, and the other employment programs in operation. At Simpson, in addition to the foregoing, we have supplied the staff with employee identification cards that establish their identity with the townspeople and admit them to all college-sponsored athletic contests and other public functions without charge.

It is human to want to be recognized and appreciated. If management instructs its employees in their respective jobs, trains them, encourages responsibility and a sense of pride in their work, and if the employees respond well, then they deserve a show of appreciation, from an increase in wages down to the spoken word.

4. *Provide the staff with good tools, equipment and supplies.* Good tools and equipment are a source of satisfaction to workers and they are time-savers on any job. College owned tools kept in the maintenance shop or in their permanent work locations, except janitor's equipment, should be in charge of one responsible person who checks them out and in, and sees that they are sharpened and kept in good repair. It is customary for the carpenters to furnish their own hand tools, the college occasionally paying for repairs and buying replacements for them.

Janitor and other maintenance supplies should be purchased with great care on the basis of their tested abil-



There's no substitute for good supervision in a successful maintenance program. Good supervision involves issuance of clear instructions to workers.

ity to do the kind of a job wanted at the lowest cost.

5. *Plan annual and seasonal work and special projects carefully and in advance.* The time-worn army word "logistics" is particularly descriptive of a good college maintenance program. It means getting the right materials at the right place at the right time. Will the budget permit doing the job now or must it be postponed? The refinishing and sealing of floors, painting classrooms and dormitory rooms and many other types of interior work must await vacation periods or other free periods during the school year. To plan for these periods so that the most work can be done in the shortest space of time is the job of management; it requires careful advance planning.

The practical approach to advance planning of maintenance is to make a semiannual survey of all college properties. This survey is made by the business manager and the superintendent of buildings and grounds together. All items of work are listed and an estimate of cost is recorded. The cost estimate of each item is placed in one of two columns, headed "first importance" or "second import-

ance," whichever applies. Each column is totaled and the items considered of first importance are balanced against the available funds for such work as shown by the budget. The approved projects are entered on a work order and delivered to the superintendent for processing.

Advance planning of work involving outside contractors is of particular importance. Their work schedules usually are not as easily adjusted as those of the college staff to fit the dates when job sites are available. The contractor needs ample notice to plan his work.

6. *Follow through with good guidance and supervision.* There is no substitute for good supervision in a successful maintenance program. In addition to careful planning, good supervision involves issuance of clear instructions to workers and periodic inspections of the work in process and on completion. The regular day-to-day work of the staff, particularly custodial workers, should be inspected at intervals by supervisors, and helpful hints and suggestions should be made to them for improvement.

Each year the business manager and the superintendent of buildings and

grounds should go over their maintenance program in the light of budget allowances set up by the president and the board of trustees. This usually means that in lean years, when budgets are cut back, the extent and sometimes the quality of the maintenance program are reduced. In flush years, the college tries to pick up the deficiencies and omissions of the lean years. This is a fallacious policy because the need for good maintenance does not vary in proportion to the financial income of the college or with the enrollment. The need of maintenance is constant. Buildings continue to depreciate, run down, wear out, and become obsolete. The rate of these changes varies little with the amount of traffic. Grass, trees and shrubbery continue to grow and require attention at about the same cost each year.

Furthermore, it is costly to follow an irregular now-we-have-to-do-it type of maintenance from year to year. If we fail to give timely attention to floors, roofs, exterior painting, mechanical equipment, and such things, we're in for greater cost when we are forced to do the job. This is not to mention a loss in public good will and reflection on management.

The best solution to the financing of a good maintenance program, looking to the preservation of the useful life of college properties, is to make provision in the budget each year for a maintenance reserve fund. This reserve should be set aside in cash or invested in short-term securities. It can then be used to meet the once-in-three or once-in-five year known maintenance and repair expenditures as well as to cover unknown contingencies. It relieves us of the temptation to let a job wait if funds are not otherwise available. And it avoids loading the expenses of one year with costs that should be spread over several.

MAINTENANCE COSTS VARY

How much to spend for operation and maintenance rests with the individual institution. The department of finance of the board of education of the Methodist Church reports that the average expenditures for maintenance among its senior colleges in 1949-50 was 17.3 per cent of the budget. A survey of 13 small southern colleges reported an average of 13 per cent. Over a 26 year period, Simpson College averaged 13.8 per cent, ranging from a low in 1930-31 of 9.9 per cent to a high of 19.2 per cent in 1946-47.

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As any school administrator knows, dining hall or cafeteria operation involves a good deal more than serving food.

Food buying in itself is a job that can make or break a budget. Getting the right quantity at the right price is essential. Food storage, too, requires an expert . . . if waste is to be overcome. And as for serving dishes that students clamor for . . . one needs only to remember that the school competes with mother on this score!

Group feeding is not simple. Yet forward-looking administrators have discovered that there *is* an easy way to feed the student body . . . one that relieves them of all administrative detail. These administrators turn over the food problem to a firm of

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NEWS

**Vote on New G.I. Bill ... Illinois Institutions Establish Council on
Higher Education ... Relax Construction Regulations ... More Funds for
Housing ... Residence Hall Rates Slashed ... Gifts Reach Record High**

Establish Council on Higher Education for Illinois Institutions

SPRINGFIELD, ILL.—The Council on Higher Education representing the colleges and universities operated by the state of Illinois recently has been established. Institutions represented in the Council on Higher Education include: Western Illinois State College, Eastern Illinois State College, University of Illinois, Northern Illinois State Teachers College, Southern Illinois University, and Illinois State Normal University. Each institution will be represented by five persons consisting of the president, dean, business manager, and two others named by the president of each institution. Formal resolution of the council will require a unanimous vote.

The council will not be a legislative or policy forming body. However, its members will undertake, among other things, to report on proposed new programs and policies and to exchange information that would be helpful in evaluating budget requests, including salary schedules and capital expenditures.

Members of the council will search for means to eliminate unnecessary duplication of programs and provide needed services. They will work toward greater uniformity in budget form and analysis and assist one another in critical analysis of the basic educational programs of all colleges and universities. The council also will consider comprehensive and continuous plans for higher education in the light of future population and other factors.

Will Ask U.S. Aid for College Education

WASHINGTON, D.C.—According to reports, Federal Security Administrator

Oscar R. Ewing is going to ask Congress for a \$30,000,000 appropriation for scholarships to high school graduates "of demonstrated ability and need" in order to permit them to attend colleges and universities. This amount is twice the size of the appropriation proposed unsuccessfully in 1950.

Under proposed legislation, plans would be made for the federal government partially to insure student loans made by colleges and universities under their normal procedures. It is reported that the scholarship plan will be submitted to Congress in time for a program to be developed beginning with July 1 of this year.

Some Relaxation in Construction Regulations

WASHINGTON, D.C.—N.P.A. announced that relaxation of construction regulations will permit limited amounts of entertainment and amusement project building and the use of some structural steel in housing for the third quarter of this year.

Under the revised regulations, effective July 1, the following amounts of materials for construction of recreational projects per quarter are authorized: 5 tons of carbon steel, not to include more than 2 tons of structural shapes, 200 pounds of copper, and 250 pounds of aluminum.

Office Forms on Loan

NORTHFIELD, MINN.—Robert W. Feyerharm, assistant treasurer of Carleton College, reported that the portfolio of business office forms that he developed for display at the annual meeting of the Central Association of College and University Business Officers is available for loan to college administrators. This offer is the result of a considerable number of inquiries.

House Committee Votes Favorably on New G.I. Bill

WASHINGTON, D.C.—On May 14 the House committee on veterans' affairs voted favorably on the Teague Bill (H.R. 7656) and included with it sections of the Rankin Bill (H.R. 7642) relative to loans to veterans, old-age and survivors insurance, and job counseling and placement. Provisions for unemployment compensations were dropped and provisions for mustering out pay were substituted.

Eligibility for benefit from the new bill will be available to all veterans who have served on active duty at least 90 days between June 27, 1950, and such future date as shall be determined by the President or Congress.

The time entitlement for education and training will be figured on the basis of one and one-half times the number of days in active service up to a total of 36 months. If the period of entitlement expires after the major part of a semester or quarter has been completed, the veteran is entitled to continue to the end of such semester or quarter.

The veteran must initiate his training and education within two years after Sept. 1, 1954, or his discharge from active service, whichever is later, and must complete his training in education within seven years from the date of his discharge. The veteran will be required to continue his education after he has initiated it without interruption, except one interruption not to exceed 12 consecutive months or other interruptions as are approved by the V.A. administrator.

A veteran is free to select his program of educational training in any approved institution that finds him qualified, except in such cases that the V.A. may withhold approval if the



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NEWS

veteran has already completed the courses required for the vocational, educational or professional objective given by the veteran. One change of course is allowed; more than one change of course requires the approval of the V.A.

If according to the regularly prescribed standards of practice and practices of the educational institution, the veteran is found to be making unsatisfactory progress, the V.A. will discontinue the educational allowance.

Payment will be made directly to the veteran "to meet in part the expenses of his subsistence, tuition, fees, supplies, books and equipment." Payments for full-time students will be \$110 a month for veterans with no dependents; \$150 for veterans with one or more dependents. If the course is not a full-time course but rather a schedule on a three-fourths basis, the payments will be \$80 and \$110 a month; if half-time, \$50 and \$70 per month. Students taking less than half-

time courses will receive payments equal to the tuition and fees required of nonveterans or the proportion of \$110 or \$150 a month which the number of semester hours taken by the veteran bears to a full-time load. According to the new bill, the full-time undergraduate course in a college or university is a minimum of 14 semester hours or its equivalent.

Under the bill, a "state approving agency" shall be designated in each state by the chief executive of the state. This agency shall designate the approved educational institutions and courses and may enlist the cooperation of the Office of Education and other federal agencies. The V.A. will reimburse the state agencies for necessary expenditures.

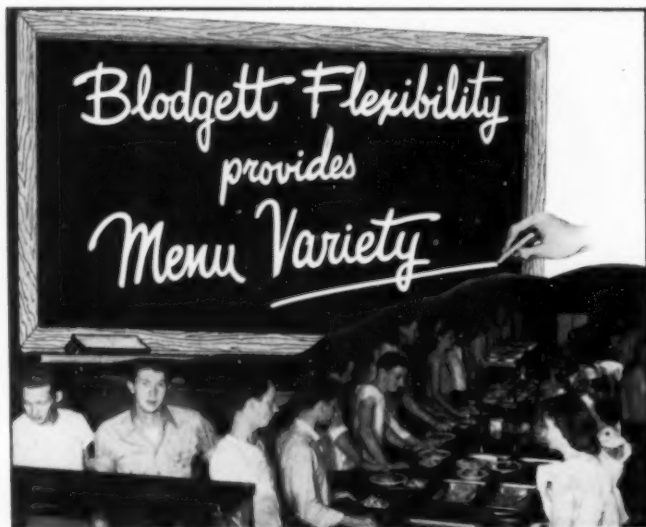
More Funds Allowed for College Housing

WASHINGTON, D.C.—The College Housing Program, originally authorized for a \$300,000,000 appropriation by Congress, and later cut by action of President Truman to \$40,000,000, is expected to be substantially increased.

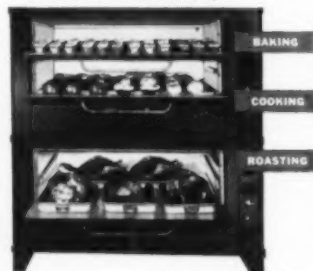
Since the \$40,000,000 was released, another \$20,000,000 has been made available to colleges and universities for purposes of construction of residence facilities.

In a communication to Raymond M. Foley, administrator, Housing and Home Finance Agency, the committee of the American Council on Education charged with relationships of higher education to the federal government urged that another extension or release of funds be made available. The committee received a communication from Mr. Foley on May 2 indicating that the criterion that the housing must be "defense related" has been liberalized and that there is every indication that if a sufficient number of approvable applications are received another \$20,000,000 may be released, (bringing the total to \$80,000,000).

Mr. Foley also pointed out that owing to the higher rate of new government bonds, the interest on the loans for college housing increased on May 1, 1952, to 3.01 per cent. It was recommended that institutions interested in this loan program for student and faculty housing should contact their regional representative of the Housing and Home Finance Agency.



Young healthy appetites demand nourishing meals. This modern kitchen tool is ideal for schools to keep a steady stream of oven-prepared foods flowing to the school tables . . . THREE WAYS . . . ROASTING . . . BAKING . . . GENERAL OVEN COOKERY. The speed and flexibility of a Blodgett Oven make it possible to cook your food to perfection and have it ready on schedule. Dietitians recognize in hot, nourishing oven-prepared meals the best means of serving a wide variety of meals at prices students can afford to pay.



A BLODGETT COOKS 70% OF YOUR MENU

On one large, single deck a Blodgett offers capacity for meat pies, meat loafs, baked vegetables or pastries, desserts and hot breads. Another deck roasts your meat or bakes your fish. You are always assured variety because a Blodgett can prepare as much as 70% of the cooked food on your menu.

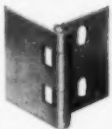
Blodgett makes ovens from its "Basic Three" design which provides the units to make 24 models.

THE G. L. BLODGETT CO. INC.

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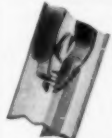
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SAG-PROOF HINGES



Rugged 5-knuckle hinges, with $\frac{3}{4}$ " semi-recessed pins, are made of 14-gauge steel. Both welded and bolted into place.

GREATER SECURITY



Only Medart Lockers have this patented pick-proof "dual latch" mechanism concealed in the lock rod channel. It's pre-locking, positive in action whether door is slammed or gently closed.

STURDY BOTTOMS



Built to take brutal punishment — won't break or sag. Full $\frac{1}{2}$ " flange of bottom is tied solidly to steel frame. Compare this feature with ordinary lockers!

STRONGER



Entire frame — top, bottom and sides — is channel-chaped steel electrically welded into a single solid, rigid unit that stays square and true.

ADJUSTABLE LEGS

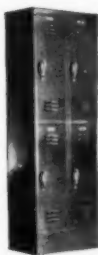


Heavy malleable iron. Front legs are adjustable up or down to compensate for unevenness of floor.

Compare Them
for **DURABILITY**
SECURITY
TOP VALUE

MEDART

STEEL LOCKERS



MEDART LOCKERS

are built in all standard types and sizes, both recessed and free-standing.

BASKET SHELVING

sturdy and very rugged, both permanent and portable, in many sizes is built by Medart.



A better constructed, stronger, more serviceable locker can't be bought! More than that, because Medart originated virtually every practical feature used in modern steel lockers, Medart builds the locker that includes them all — not just those above, but many more!

By actual comparison you'll find the skillful engineering, best quality metals and precision manufacture in Medart Lockers are a better paying long-term investment in extra years of service, far less maintenance, appearance that stays new indefinitely, and thoroughly dependable tamper-proof protection.

Medart offers 80 years of engineering experience to help analyze and solve the most complicated locker problem. No matter how modest your budget, Medart Lockers give you more for the money!

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Gym Seats

Lockers & Wire
Basket Shelving

Lockers &
Grade-Rakers

Basketball
Backstops

Physical Fitness
Apparatus

Basketball & Football
Scoreboards

Physical Therapy
Equipment



NEWS

Gifts to Colleges Reach Record High

NEW YORK CITY.—According to a report by the John Price Jones Company, Inc., fund raising consultants, gifts to 51 colleges and universities during the past year reached a record high of \$88,235,000. This represented an increase of 14.35 per cent in a year. Results of the survey, however, showed that bequests dropped 39.5 per cent to \$21,524,000. The total of

gifts and bequests was \$109,759,000, under the previous year's record of \$112,790,000. Gifts represented 80 per cent of the total, as against 68.4 per cent in 1949-50 and 74 per cent from 1945-46 to 1949-50.

Heading the list of beneficiaries were Yale, with \$10,488,000 received last year in gifts and bequests; Harvard, \$9,876,000; Massachusetts Institute of Technology, \$9,145,000; Columbia, \$5,904,000, and Chicago, \$5,865,000.

Robert L. Stearns Elected Chairman of Council on Education

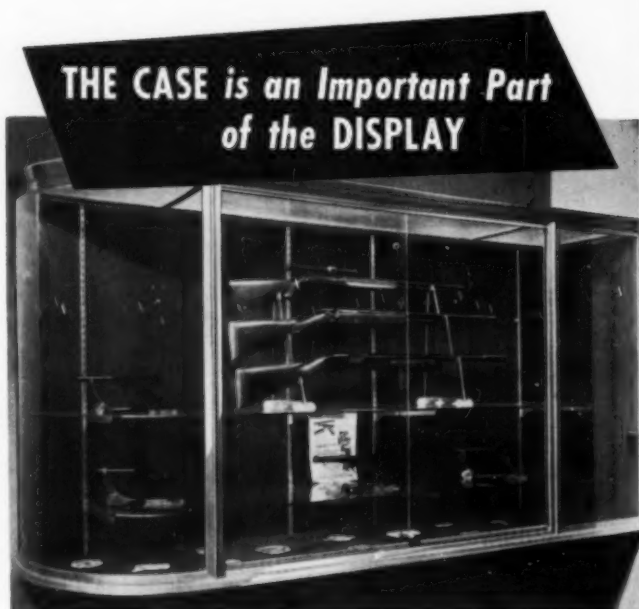
CHICAGO.—At the annual meeting of the American Council on Education, Robert L. Stearns, president of the University of Colorado, was elected chairman for the coming year. President David A. Lockmiller of the University of Chattanooga was named first vice chairman, and William G. Saltonstall, headmaster of Phillips Exeter Academy, second vice chairman.

In resolutions adopted, members of the council recommended the establishment of a committee on international cultural relations to collect and disseminate information about governmental and voluntary programs in international cultural relations. They urged the council to continue its efforts toward development of a national manpower policy that will provide for the best utilization of the national manpower resources, including necessary provisions for education and training. They recommended that the membership be polled to procure its judgment on current legislation for educational benefits for veterans who have served in the armed forces on or after June 27, 1950. They commended the committee on athletic policy and recommended a continuous study of this problem.

U. of Iowa Reduces Residence Hall Rates

IOWA CITY, IOWA.—The University of Iowa is reported to be one of the first institutions in recent months to report a rate decrease in residence hall charges. President Virgil M. Hancher, in making the announcement, stated that the reductions had been possible because the lenders from whom funds were borrowed to build a self-liquidating residence hall system have agreed to reduce the rate at which the loans must be repaid.

The cost of a double room with board in a residence hall will be reduced by \$35 as of June 1, and a double room without board in a nonboarding residence hall will cost \$10 less for the academic year. This new residence hall rate decrease will be the second in recent months. A \$10 per semester reduction for the current year became effective in January for those living in boarding residence halls.



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such ease . . . at such a saving!

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NEWS.

Telecourse Students Rate High as Group

CLEVELAND.—A report recently made by Dr. Eleroy L. Stromberg, chairman of the department of psychology at Western Reserve University, compares the educational results of credit courses given by television to those of the regular campus courses.

Basing his study upon the results of a course in introductory psychology that he offered last fall over Station

WEWS in Cleveland, Dr. Stromberg found that students enrolled for home study by television who completed the course work were superior as a group to the campus students. He discovered, too, that a high percentage of the telecourse students completed the course. The same final examination was given to telecourse students and to campus students. The median score for 1200 campus students who had previously taken the examination was 54; for the telecourse students it was 67.

San Antonio Moves University to New Site 5 Miles Away

SAN ANTONIO, TEX.—Trinity University completed the fourth and final migration in its 83 year history on May 13, when it moved 5 miles across town to a new campus of 107 acres.

President James W. Laurie believes that Trinity has executed the largest one-day move of any educational institution in the country. Half a million pounds of supplies and equipment were moved.

The San Antonio Association of Motor Carriers moved Trinity free of charge with 51 vans, trailers, trucks and 72 men. T. W. Longino, president

IN COLLEGES TOO... **MULTI-MATIC** cuts Payroll Time in half

Cut clerical costs on a basic accounting job like payroll . . . and you've done something really important. That's why the news of what Remington Rand Multi-Matic can do is traveling fast.

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You save—because one writing replaces three. You save—because you eliminate transcription errors. And you save—because your office records are exact carbon copies of the Earnings Statement and check (or cash payment slip) issued to each employee. Get the facts—now. Write today for your free copy of Booklet LL 162. Address Management Controls Reference Library, Room 1179, 315 Fourth Avenue, New York 10, N. Y.



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*An inexperienced girl
can learn to operate
Multi-Matic in a
few minutes.*



Mayor Sam Bell Steves (left) and James W. Laurie, Trinity president, at ribbon-cutting ceremonies. (San Antonio News photo.)

of the association, estimated the value of the rolling stock at more than a quarter of a million dollars. The equipment required more than \$15,000 in license fees, and almost 5000 man-hours of work went into the college moving project. If the professional movers and vehicles had been working commercially, it is estimated that the cost to Trinity would have been about \$11,000. Volunteer student and faculty aid saved another \$4000 in labor.

Assisting the truckers, also, were members of the 117th M.P. Battalion of Fort Sam Houston, and the 141st Infantry Regiment, Texas National Guard, who furnished radio communications and directed traffic; Baptist Memorial Hospital nurses, who operated first-aid stations, and the San Antonio fire and police departments. The mayor, city and county officials, and members of the chamber and junior chamber of commerce donned overalls and carried packing cases. Dr. Bruce Thomas, dean of the Presbyterian U.S.A. University, served as chairman of the moving committee.



Specialists in Dishwashing Products



A new kind of detergent developed especially for washing dishes, glassware, silver, pots and pans **BY HAND!**

FAME LASTS LONGER! FAME in your dishwater won't break down . . . holds more soil in suspension. Washing solution lasts longer, *saves* detergent!

FAME ACTS FASTER! FAME penetrates soil quickly, actually loosens dirt *before* mechanical action starts!

PRODUCES MORE SUDS! Super-wetting agents in FAME make rich, lasting suds in hard or soft water!

NO SURFACE SCUM! FAME contains no soap . . . won't make "scum" in hard water. Sodium CMC even holds grease in suspension, keeps it from floating to surface!

FASTER DRAINING, RINSING! Reduces surface tension of water, rinses fast . . . drains dry without spotting or streaking!

SO EASY ON THE HANDS! Pleasant to use! Drains *completely* — leaves no residue to cause off-odors! Pleasing, unmistakable blue color.

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At last — a new, fast, efficient *hand* dishwashing product, companion-product to sensational Wyandotte SALUTE for machine dishwashing! FAME (yes, FAME's the name!) is ideal for *all hand dishwashing* — contains Wyandotte's own, exclusive, super-active wetting agents, and is PROMOTED with Sodium CMC! Try it. *No other product* gives you such *clean* dishes so *fast*, at such *low cost*, and so safe and *easy on the hands*! Ask your jobber or Wyandotte representative. Wyandotte Chemicals Corporation, Wyandotte, Michigan; also Los Angeles 54, California.

 **Wyandotte**
CHEMICALS

Helpful service representatives in 88 cities
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NEWS

NAMES IN THE NEWS



C. Rikert Jr.

French, who resigned to accept appointment as business manager of Wellesley College.

Carroll Rikert Jr., controller of Brown University, has been appointed business manager of Middlebury College, Middlebury, Vt., to succeed **Irwin K.**

George W. Green, business manager of California Institute of Technology, has been elected controller, reporting to the board as the fiscal officer of the institute, and **Herbert H. G. Nash**, assistant secretary, has been elected secretary. In these positions they succeed the late **Edward C. Barrett**, who had served as both controller and secretary for many years before his death last February.

Harry W. Chaskey, director of the bookstore at the University of Toledo,

has been appointed manager of the University of Buffalo bookstore, effective July 1.

William A. Smaby, cashier of the First National Bank of Rushford, Minn., has been appointed business manager and treasurer of Concordia College,



W. A. Smaby

Moorhead, Minn. Mr. Smaby will assume his duties at Concordia July 1.

Dr. Carl W. Borgman, dean of faculties at the University of Nebraska, has been named to the presidency of the University of Vermont, Burlington. He succeeds **Dr. William S. Carlson**, who resigned recently to become president of the State University of New York.

Henry Schmitz, dean of agriculture and forestry at the University of Washington, has been named president of



H. Schmitz



H. P. Everest

the university to succeed **Raymond B. Allen**, who resigned last fall. **Harold P. Everest**, now acting president, has been appointed to the newly created position of vice president.

Dale O. Bowling has recently been appointed business manager of the University of Missouri, assistant to the vice president in charge of business operations and secretary of the board of curators. He was formerly auditor of the university.

Dr. Matthew S. Davage has been named president of the merged **Huston-Tillotson College**, Austin, Tex. **Dr. William H. Jones**, former president of Tillotson College, will become vice president in charge of curriculum and instruction; **Dr. Robert F. Harrington**, former president of Samuel Huston College, will become vice president in charge of public relations.

John Tyler Caldwell, president of Alabama College at Montevallo, has been appointed president of the University of Arkansas. **Franz Edward Lund**, dean of State Teachers College at Florence, Ala., has been named president of Alabama College.

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Kimble Squibb Separatory Funnels
are standard taper and inter-
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Easy and complete quantitative separations

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NEWS.



H. H. Brooks

Howell H. Brooks, acting president of Coe College since September 1951, has been unanimously elected by the board of trustees to the presidency of the college. Mr. Brooks went to Coe College in 1950 as business manager after eight years as controller at DePauw University, Greencastle, Ind.

A. V. Howland, superintendent of the Kansas Conference of the Evangelical United Brethren Church, became president of York College in Nebraska on June 1. He succeeds **Dr. Walter Bachman**, who will continue on the college staff as dean of men.

Beatrice McDermott has been named headmistress of Saint Mary's Hall, San Antonio, Tex., according to a recent announcement by the trustees of the institution. Her appointment becomes effective July 1.

William Fletcher Quillian Jr., professor of philosophy at Ohio Wesleyan University, was recently elected to the presidency of Randolph-Macon Woman's College, Ashland, Va. He will assume his new duties early this summer, succeeding **Theodore Henley Jack**, who announced his plans for retirement last April.



W. F. Quillian Jr.

Allen E. Shearer, dean of Southeastern State College, Durant, Okla., has been elected to the presidency to succeed **T. T. Montgomery**, who retires on July 1 after 15 years as president.

Walcott Anders Hokanson Jr., administrative assistant to the controller at Yale University, has been appointed business manager at Adelphi College, Garden City, N. Y. He will succeed **J. Wilson Jones**, who is terminating his full-time duties this month but who will remain as financial adviser to the college.



W. A. Hokanson Jr.

J. Cloyd Miller, superintendent of schools at Deming, N. M., and currently president of the National Education Association, has been appointed president of New Mexico Western College, Silver City. He succeeds **Haddon W. James**, who is retiring after 16 years as president.

Jacob B. Taylor, vice president and business manager of Ohio State University, was one of six men recently selected by the board of trustees to receive the Distinguished Service Award, which was presented for the first time at this year's commencement ceremonies. He received a parchment citation, indicating in brief the nature of his service to the university, and later will receive an appropriate medal.

The Very Rev. W. Patrick Donnelly, S.J., president of Spring Hill College in Alabama, has been named to the presidency of Loyola University, New Orleans, where he will succeed the **Very Rev. Thomas J. Shields, S.J.**

Luther L. Gobbel, president of Greensboro College since 1935, recently submitted his resignation effective at the end of the fiscal year, June 30. At

CHAPEL OF THE FOUR CHAPLAINS, PHILADELPHIA, PA.
Dedicated to four Army chaplains, two Protestant, one Jewish and one Catholic, who, on a sinking troopship gave their lifejackets that others might live, the chapel is an eternal, living memorial to the brotherhood of man.



We're proud of this
... tribute from Dr. Poling

In a recent letter to us, Dr. Poling, Chaplain of the Chapel of Four Chaplains said,

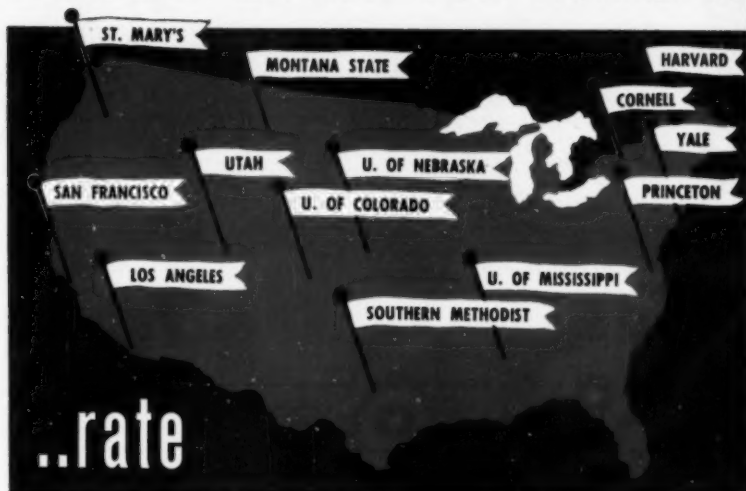
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Columbia University (N. Y.)
Cornell University (N. Y.)
Dade County (Fla)
Deerfield Academy (Mass)
University of Denver
Dickinson University (Pa)
Fordham University (N. Y.)
Georgetown University (D. C.)
George Washington (D. C.)
Groton School (Mass)
Hamilton College (N. Y.)
Harvard University (Mass)
Hobart College (N. Y.)
University of Illinois
University of Iowa
Johns-Hopkins (Md)
University of Kansas
Louisiana State
Loyola (Md)
University of Maine
University of Maryland
Massachusetts Institute
Mercer University (Ga)
Mississippi University
Nazareth Academy (Ky)
Nebraska University
New York University
Northwestern University (Ill)
Notre Dame University (Ind)
Ohio State University
Oklahoma University
University of Pennsylvania
Phillips Andover (Mass)
Princeton University (N. J.)
Purdue University (Ind)
Radcliff College (Mass)
Randolph-Macon (Va)
St. Bonaventure (N. Y.)
Seton Hall (N. Y.)
Smith College (Mass)
Southern Methodist (Tex)
Sweet Briar (Va)
University of Syracuse (N. Y.)
Tufts College (Mass)
U. S. Coast Guard Academy (Mass)
Villanova (Pa)
University of Virginia
Virginia Military Institute
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NEWS

the time of his resignation Dr. Gobbel stated that his plans for future work would be made later.

Robert Deyton, former assistant director of the budget and director of personnel for the state of North Carolina, has been named to the position of vice president and controller of Wake Forest College in North Carolina. At the same time **Loyde O. Aukerman**, national director of the field promotional program of the American Baptist Convention, was appointed to the posi-



L. O. Aukerman

tion of vice president and director of public relations at Wake Forest.

Amy Hostler, former president of the National Association for Nursery Education, has been named as the first president of Mills College of Education, 66 Fifth Ave., New York City.

Brother Arthur A. Loftus, president of Iona College at New Rochelle, N. Y., retired this month. Brother Loftus' successor has not yet been announced.

John Paul Vincent is the new president of the College of the Ozarks, Clarksville, Ark.

Lucius A. Whipple, president of Rhode Island College of Education from 1939 to 1951, died recently at 65 years of age.

DIRECTORY OF ASSOCIATIONS

National Federation of College and University Business Officer Associations

President: Jamie R. Anthony, Georgia Institute of Technology; vice president: James M. Miller, University of California Berkeley; secretary-treasurer: Irwin K. French, Middlebury College.

Association of College and University Business Officers

American Association

President: J. R. E. Lee Jr., Florida A. & M. College; secretary: L. H. Foster Jr., Tuskegee Institute.

Central Association

President: Bruce Pollock, Carleton College; secretary-treasurer: C. C. De Long, University of Illinois.

Eastern Association

President: Charles H. Wheeler III, University of Richmond; secretary-treasurer: Irwin K. French, Middlebury College.

Convention: Nov. 30-Dec. 2, Chalfonte-Haddon Hall, Atlantic City, N.J.

Southern Association

President: Frank D. Peterson, University of Kentucky; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: Nelson Wahlstrom, University of Washington; secretary-treasurer: James M. Miller, University of California, Berkeley.

Association of Physical Plant Administrators of Universities and Colleges

President: Edward Perdon, University of Michigan; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

American College Public Relations Association

President: Edward P. Vanderhaar, Xavier University, Cincinnati.
Convention: 1953, Salt Lake City.

Association of College Unions

President: Charles D. Owens, University of Washington; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

College and University Personnel Association

President: B. W. Ames, University of Florida; secretary-treasurer: Fred Doderer, State University of Iowa.
Convention: July 20-23, Minneapolis.

National Association of College Stores

President: H. R. Ritchie, University of North Carolina Book Exchange, Chapel Hill; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

National Association of Educational Buyers

President: Kermit A. Jacobson, California Institute of Technology; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

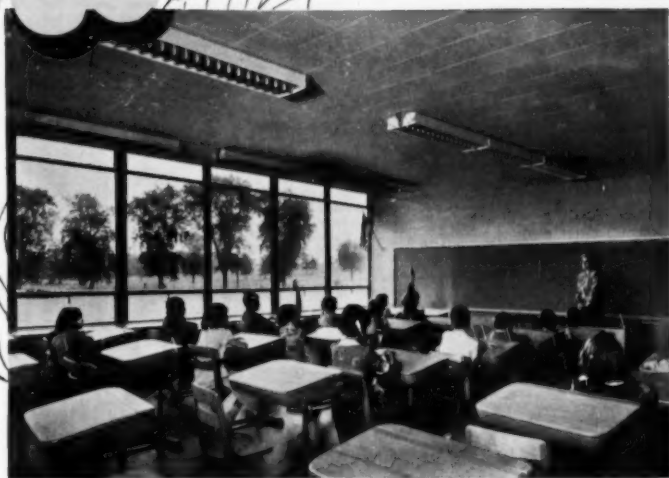
National Association of College and University Housing Officers

President: S. Earl Thompson, University of Illinois; vice president: Kenneth D. Lawson, Michigan State College; secretary: Ruth Donnelly, University of California.

Convention: Aug. 4-6, University of California, Berkeley.

FLOWERS grow faster in sunlight...

KNOWLEDGE grows faster in Guth-light!



Classroom lighting has a great influence on the mental and physical growth of students. Proper lighting eliminates eyestrain, relaxes muscles, conserves energy and results in better posture. This makes it easier for pupils to translate words into knowledge and, in many instances, improves their general well-being and health.

After careful study of requirements for proper school lighting, GUTH has designed fixtures which give students maximum eye protection and see-ability. Yet they are economical in purchase, installation and maintenance.

For complete information on GUTH Precision-Planned School Lighting, contact your nearest GUTH resident engineer or write for our Catalog today.

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Guth 52

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classified advertising

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POSITIONS WANTED

Accountant—Mature woman now employed in small college; experienced with budgets, general accounting, central purchasing; eastern location preferred. Write Box CW 99, COLLEGE AND UNIVERSITY BUSINESS.

Accountant—Desire responsible position, \$5,000 area, in business office; accounting major; some six years' experience; part industrial (standard cost system); part college accounting, auditing and statistical. Write Box CW 106, COLLEGE AND UNIVERSITY BUSINESS.

Administrator—Ph.D., trained in college administration, former Psychology professor, seeks combination of academic administration and promotional or development responsibilities; welcomes opportunity to help build strong program or institution. Write Box CW 103, COLLEGE AND UNIVERSITY BUSINESS.

Administrative Assistant—College graduate with financial and legal background desires position as an administrative assistant at a university, college or large school; salary open. Write Box CW 85, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager—Presently employed in eastern college; master's degree in Business Administration; specialist in accounting, investments, and fund raising; fifteen years' experience in educational institutions; wide experience as a speaker. Write Box CW 80, COLLEGE AND UNIVERSITY BUSINESS.

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Business Manager-Financial Officer—Well-qualified by college, industrial, government contract, and auditing experience; for full information write Box CW 86, COLLEGE AND UNIVERSITY BUSINESS.

College Business Officer—B. A. Degree, also graduate of accredited accounting school desires position of administrative responsibility; accounting and broad supervisory experience; excellent references; employed but seeking position with larger scope. Write Box CW 83, COLLEGE AND UNIVERSITY BUSINESS.

Dean, Vice-President, Business Manager—Presently employed business manager and assistant to the president, eastern college, wishes job with more scope. Ph. D.; teaching experience; five years in present position, excellent relations both faculty and townspeople; public speaking; experience or knowledge all phases of college administration; aged 37. Write Box CW 88, COLLEGE AND UNIVERSITY BUSINESS.

Director of Food Service—M.A. degree in Institutional Management; experienced in every type of college and university work as manager of large food service departments; now employed. Write Box CW 101, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director—Position wanted in larger university; five years' experience as college food director, of an enrollment of eighteen hundred and boards of two hundred and fifty; two years at a state institution, feeding three thousand; commissary steward four years; graduate of Cooks & Bakers School; two years with B.A.; age thirty five; dependable & honest; would like change in summer; prefer west coast, but will consider anywhere; can furnish good recommendations. Write Box CW 102, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director or Assistant—Graduate, The University of Chicago Institutional Management and Restaurant Administration Program; A.B. and M.B.A. degrees; four years practical experience; salary open. Write Box CW 104, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent or Assistant of Building and Grounds—5 years' experience New York metropolitan college; available immediately; college education. Write Box CW 97, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Accountant-Auditor—Progressive Liberal Arts College, to have charge of all college accounts; age under 40, salary open; for immediate employment. Write Box CW 79, COLLEGE AND UNIVERSITY BUSINESS.

Assistant Manager—Position now open for assistant manager of large, new dining service unit on a New England campus; two or three years' experience in a dining service is desirable; a good opportunity for a man who is ready to advance to a large college dining operation with a progressive program of campus feeding. Write Box CW 78, COLLEGE AND UNIVERSITY BUSINESS.

Assistant Manager of Dining Hall—Midwest university; position available immediately; desire young man who has had university training and some experience in institutional feeding; starting salary \$5,200; send full information regarding age, education, experience, etc. Write Box CW 83, COLLEGE AND UNIVERSITY BUSINESS.

Assistant Manager of Dormitories—Needed by small California men's college; must be able to supervise food service; send full information regarding education, experience and salary. Write Box CW 76, COLLEGE AND UNIVERSITY BUSINESS.

Building Engineer—Needed by large college in Pacific Northwest; responsible for all equipment in new union building; position available immediately; send full information regarding education, experience and salary. Write Box CW 73, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager—Eastern state university, permanent position to manage operation of plant, dining halls, store, housing, and personnel office; write qualifications, education, experience, age, references, and salary requirements. Write Box CW 81, COLLEGE AND UNIVERSITY BUSINESS.

Director of Residence and Dining Halls—Small New England girls college; experience in college food service management essential; position open July 1; in reply state complete qualifications. Write to Box 77, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Supervisor—Needed by large college in Pacific Northwest; excellent opportunity for organizing new operation; position available about June 1, in new union building; send full information regarding education, experience and salary. Write Box CW 72, COLLEGE AND UNIVERSITY BUSINESS.

Graduate Engineer—With at least 5 years experience in steam generation, to take charge of plant having capacity of 400,000 lbs. per hour; Turbine Driven Generator for power; location New York State; specify full particulars and salary desired; position open September 1, 1952. Write Box CW 84, COLLEGE AND UNIVERSITY BUSINESS.

Kitchen Manager—Position as assistant to Dietitian in university residence halls; woman with some experience preferred; give age, experience and references in first letter. Write Box CW 82, COLLEGE AND UNIVERSITY BUSINESS.

Manager of Dining Halls and Student Union—Small Massachusetts college; operation of new freshmen commons student union building; to participate planning construction, position available immediately; experience required. Write Box CW 68, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Large University in Pacific Northwest seeking qualified applicants for position; qualifications: college degree, preferably in Engineering, Architecture, or Business Administration; minimum two years supervisory experience in building maintenance and construction with proven skill in handling variety of maintenance crafts; write full particulars as to experience, education, references, and age. Write Box CW 80, COLLEGE AND UNIVERSITY BUSINESS.

FOR SALE

To A College In Southwest.

Automatic Laundry Equipment 3 years old, 16 Westinghouse Laundromats, 1 Extractor, 2 Dryers, 3 Heaters and Water Tank, all for \$1600. Write P.O. Box 9212, Baton Rouge, Louisiana.

Forms close 25th of month preceding date of issue.

Address replies to
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919 N. Michigan Avenue, Chicago 11, Ill.

COLLEGE AND UNIVERSITY BUSINESS

"The true university... is a collection of books"

THOMAS
CARLYLE



If that were all there was to a university, the job of running one would be relatively simple.

But besides the books and teachers and scholars, today's university includes a vast complex of buildings to make the teaching practicable and provide for the physical well-being of the students.

Managing this plant is a big job, and you're right when you choose for your buildings equipment that will give excellent and lasting service. Crane valves, fittings and fixtures, for example. Crane is the preferred school plumbing for many reasons:

Durability—students for decades to come will use the Crane fixtures you specify today.

Ease of Servicing—exclusive Crane Dial-ese and Magiclose faucets (with the renewable cartridge) mean longer life.

Ease of Maintenance—smooth, glistening surfaces are easy to clean, help stretch maintenance budgets.

Reputation—the Crane reputation for quality has ready acceptance with boards and committees who approve budgets.

When you build, think of the years ahead. Talk it over with your Architect and Contractor—and let them know your preference for Crane.



Crane lavatories are preferred plumbing for outstanding schools and colleges the country over. The Rhodite lavatory you see here features Crane supply fittings with Dial-ese controls and direct-lift waste.

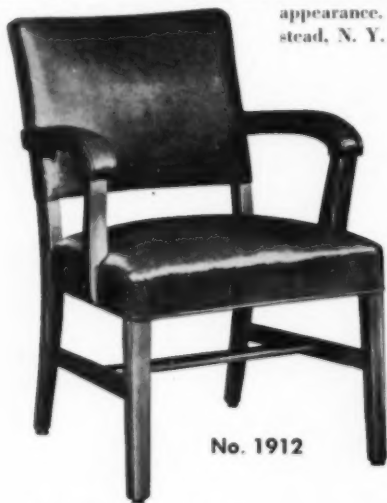
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GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5
VALVES • FITTINGS • PIPE
PLUMBING AND HEATING

For School Seating that "Takes a Beating"



The committee which decided on the seating for the Bethpage Grade School in Bethpage, Long Island, N. Y. wanted assurance of *extreme durability* and *low upkeep cost* . . . along with fine appearance. Therefore, through J. S. McHugh, Inc. of Hempstead, N. Y. they chose Sikes modern wood chairs (No. 1912), luxuriously upholstered and stoutly finished to withstand hard usage . . . for the school offices and conference room (shown above).



No. 1912

They also made sure of long wearing qualities and low maintenance cost in the furniture for the Homemaking Room, Sewing Class Room and Domestic Science Room by specifying Sikes household furniture.

Let us put our specialized school knowledge to work for you. Tell us what rooms you desire to furnish, and indicate their style and size. We will send photographs and suggestions.

← This Chair Shown in Setting Above

SIKES furniture

FOR DORMITORIES, DINING ROOMS, LIBRARIES,
CLASSROOMS, OFFICES, RECEPTION ROOMS, CLUBS



THE SIKES COMPANY, INC. • 32 CHURCHILL STREET • BUFFALO 7, N. Y.

WHAT'S NEW

June 1952

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 84. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Towel-Dispensing Cabinet



Pre-testing of the new Push Button Control Turn-Towel dispensing cabinet indicates a reduction in towel consumption of up to 50 per cent with its use. The dispenser is designed for use with Mosinee Turn-Towels, a pure sulphate towel available in roll form.

The new dispensing cabinet is easy to operate yet provides a desirable control to discourage waste of towels. When a button is pushed in front of the cabinet and a small crank at the side of the cabinet is turned, a single towel is dispensed. Since Mosinee towels are rapidly absorbent, strong and soft-textured, a second towel is seldom necessary. The cabinet is ruggedly constructed for hard use and the dispensing mechanism is completely removable as a unit in case of damage. **Bay West Paper Co., Dept. CUB, Green Bay, Wis. (Key No. 777)**

Room Air Conditioners

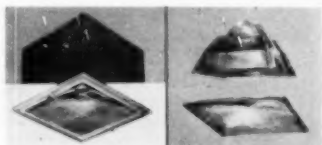
Two new model window type room air conditioners with hermetically sealed refrigeration circuit have been added to the York line. The $\frac{1}{2}$ h.p. unit, known as Model 4, protrudes only 10 inches into the room, can be installed in almost any type window and is economical in operation. It is designed for small rooms, offices and other areas and has a four way adjustable air distribution grille. It has disposable type filters easily reached without having to remove the cabinet from its mountings.

Model 51, with 1 h.p. motor was designed for larger sized rooms. It provides draft-free circulation by means of easily adjustable rotary grilles. The far corners of the room are reached with cooled air by means of the multi-blade disc type fan. All models are smartly

styled and window models are available in two-tone tan and dark ivory finish to harmonize with any color scheme. The five other room air conditioner models in the York line have been refined in engineering and design and the line now provides York air conditioners to serve any need. **York Corporation, Dept. CUB, York, Pa. (Key No. 778)**

Low Brightness Luminaire

Increased efficiency in a new concept in incandescent lighting is offered in the Holophane No. F-1570 low brightness recessed luminaire. The "optical train" in the new unit consists of a square prismatic reflector and a concave Controlens. Utilizing the Controlens, high brightness, necessary for efficiency, is always on the near side of the lens and thus shielded from the observer at any normal viewing angle. Its shape



facilitates better transmission of both direct and reflected light, resulting in unusually high output. The square reflector with a dome shaped top section contains an opening for the side entrance of the lamp.

The design of the No. F-1570 features a larger lens and a narrower trim. It is a fundamentally new and practical engineering product, conforming to the highest standards in modern lighting. The illustration, which shows the complete unit, also illustrates the reflector and Controlens. **Holophane Co., Inc., Dept. CUB, 342 Madison Ave., New York 17. (Key No. 779)**

Heat-Absorbing Glass

Aklo Fine-tex is a new heat-absorbing, glare-reducing patterned glass designed to provide "filtered daylight." It will be available in $\frac{1}{8}$ inch and $\frac{1}{4}$ inch thicknesses and may also be had in $\frac{1}{2}$ inch wired form for skylights and fire retardant glazings. The Aklo glass

filters out more than three times as much sun heat as ordinary glass of the same thickness, according to tests. The new Aklo Fine-tex is a finely-textured pattern providing a more decorative surface with light-diffusing characteristics. **Libbey-Owens-Ford Glass Co., Dept. CUB, Nicholas Bldg., Toledo 3, Ohio. (Key No. 780)**

Remote Type Air Conditioner

Both summer cooling and winter heating are provided by the new remote type room air conditioner for multiple installation known as Remotaire. It is designed for installation in offices, dormitories, hospitals and other institutions. The new unit offers individual control of temperature in every room, without affecting adjoining spaces, through connection to centrally located water heating and cooling plants.

Remotaire units are made in two sizes to meet the needs of both large and small rooms. They are attractively styled and can be installed in either a free standing or recessed position under most windows. The furniture-steel cabinet, reinforced, bonderized and finished in a baked gray enamel, encloses the heating and cooling coils, fan unit and valves. In the large model, twin centrifugal fans deliver 400 cubic feet of conditioned air per minute. A single fan delivers half that volume in the smaller unit. In both models the fans are driven by a quiet, low-speed motor. Both ventilation and recirculated air are filtered separately before blending within the fan unit, resulting in cleaner rooms and



lower maintenance. **American Radiator & Standard Sanitary Corp., Dept. CUB, P. O. Box 1226, Pittsburgh 30, Pa. (Key No. 781)**

(Continued on page 68)

WHAT'S NEW . . .

Dual Purpose Projector



The new School Master projector is a dual purpose unit for single-frame filmstrips and 2 by 2 slides. The new 300-watt, blower-cooled model features simplicity, versatility, picture brilliance and coolness of operation. It is sturdily built for hard usage, is a completely self-contained unit with no parts to attach or remove at any time, and of one-piece aluminum construction. Noiseless film advance can be operated from either the left or the right side and an automatic warning indicates approach of film ending. The single-slot "Uniway" threading is easy, quick and sure. The "Protecto-Film Channel" is a device which resists buckling by maintaining film at a flat, constantly uniform right angle to the optical axis.

The honeycomb blower cooling system is noiseless in operation and does not permit the outer lamphouse to exceed room temperature. The self-contained condenser system can be removed as a unit for ease in cleaning and for quick lamp replacement. It provides brilliant, uniform light distribution. The unit is compact and light in weight. It has all of the engineering features of S.V.E. projectors and the manufacturer states that the rubber covered cord and complete projector are approved by Underwriters' Laboratories. **Society for Visual Education, Inc., Dept. CUB, 1345 W. Diversey Pkwy., Chicago 14. (Key No. 782)**

Unaflex Laboratory Furniture

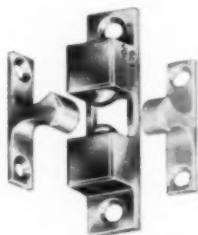
Unaflex Laboratory Furniture provides separate units which are grouped together to form finished laboratory assemblies. This system affords the desired flexibility in arrangement while reducing the high costs necessitated by specially constructed equipment. In the standardized units new design elements as well as new construction techniques and methods have been introduced.

A series of standard furniture frames was designed which could be produced in quantity and stocked in the plant. From these standard frames numerous basic laboratory units can be constructed.

By grouping the various base units into finished laboratory assemblies, almost unlimited combinations are possible to meet the widely varying requirements of laboratories. The base units specified can be fabricated from the standard frames in stock which are then grouped together to form the finished laboratory assembly. **John E. Sjöström Co., Dept. CUB, 1715 N. Tenth St., Philadelphia 22, Pa. (Key No. 783)**

Four Way Door Catch

The new G-J 21A Four Way Catch pulls and holds the door closed. It can be mortised or surface mounted for use on closet doors, wardrobe doors, grills and heavy openings that are hinged. Upon engaging, the door is pulled closed and held under constant tension by two steel balls with adjustable spring pressure. Body and engaging stud are made of extruded bronze. As the name indicates, the catch will hold from four ways



and is built with exacting workmanship throughout for efficient operation. The G-J 22 is a two way catch similarly operated and applied. **Glynn-Johnson Corp., Dept. CUB, 4422 N. Ravenswood Ave., Chicago 40. (Key No. 784)**

Darkening Shades

Luxout plastic vinyl curtains for room darkening are now available in the wind-proof style. The simple installation requires merely the attachment of two traversing tracks. The curtain stays in place even if the window is open and a breeze blowing.

In addition to room darkening, Luxout curtains are attractive in appearance and have easy, dependable operation. They are lightproof, waterproof and do not support flame. The curtains are easily cleaned by wiping with a damp cloth and retain their smooth, unwrinkled appearance even after rough handling. The curtains are simple to install and operate and provide complete darkening when desired. The traversing track attaches directly to the wall or ceiling. Hidden grommets secure the curtain in a manner to hide the track and present an attractive front view. The valance style utilizes the direct method of attaching

the curtain to the track which is then covered with a valance which blocks the light but not the air. **Plastic Products Co., Dept. CUB, 501 E. Main St., Richmond, Va. (Key No. 785)**

Fire Detection Alarm System

Moderate price and accuracy are features of the new Atmo system of fire detection and alarm. The system is approved by Underwriters' Laboratories and meets all requirements of state laws for alarm systems in public buildings, according to the manufacturer, and can bring substantial reductions in insurance premiums.

Working on the temperature-rate-of-rise principle, the system is highly flexible and is equally effective in a refrigerated area or in an area of high heat. Copper tubing mounted on the ceiling of the room terminates at a detector. Any continued undue temperature rise, such as fire produces, actuates the detector which sounds the alarm. Features which eliminate the possibility of false alarms from normal temperature changes, and even sudden, short surges of heat, are incorporated in the detector's design.

The system can be installed without marring interior decoration, regardless of the type of design of the building. The tubing comes with a variety of fasteners and can be secured along moldings. It can be painted to match room color schemes without losing its detecting effectiveness. Detection can be zoned to give the exact location of the danger, so that extinguishing equipment can be brought into immediate use. If desired, the alarm circuit can be connected to a municipal fire headquarters and an alarm transmitted as soon as fire is detected.

The system is self-supervising. A self-charging wet battery electrical supply automatically cuts in if outside power fails, and a warning signal sounds. The



batteries deliver up to 60 hours of emergency power. **Walter Kidde & Co., Inc., Dept. CUB, 675 Main St., Belleville 9, N. J. (Key No. 786)**

(Continued on page 70)

Students spend
less time on this...



have more time to
spend on this...

when you teach them on



Electric Typewriters



In test after test, the tremendous learning and teaching advantages of IBM Electrics are proved conclusively. We'd like to send you our question and answer booklet, "Electric Typewriters in Education", and copies of the latest results achieved in schools using both electrics and manuals. They make an important addition to your current teaching materials. No obligation to you, of course.

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- ☐ Please send booklet, "Electric Typewriters in Education", and latest classroom results.
- ☐ We'd like a demonstration.

Name.....

School.....

Address.....

City..... State.....

WHAT'S NEW ...

Safety-Cushion Wainscot



Developed because of a fatality caused by running into a hard-surfaced gymnasium wall, the new Spongex Safety-Cushion Wainscot provides a safety wall cushion for gymnasiums. The wainscoting consists of $\frac{1}{8}$ inch plywood panels, each 2 by 6 feet. To the panel is bonded a $\frac{1}{2}$ inch thickness of rubberized curled animal hair upon which is bonded a $\frac{1}{2}$ inch thickness of soft cellular rubber. The $1\frac{1}{8}$ inch laminate of plywood, rubberized hair and cellular rubber is covered with supported vinyl sheeting. This is drawn over the sandwich and stapled to the back of the plywood. Six

1 inch diameter holes in each panel provide air relief porting necessary to efficient cushion action.

The resulting wall, which provides complete safety against concussion up to slightly over six feet, is easily installed. The panels are hung on furring strips by metal clips and are held in place by upper and lower rails. **The Sponge Rubber Products Co., Dept. CUB, Shelton, Conn. (Key No. 787)**

Soft Drink Dispenser

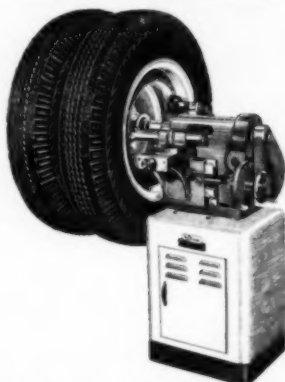
Four different flavors of carbonated soft drinks, plus plain soda and ice water can be dispensed from the new soft drink dispenser recently introduced. It comes in a variety of models with three-way faucets available on either the front of the cabinet or the gooseneck type on the top of the cabinet. It is complete with an attached cabinet for syrup tanks which can be kept away from the dispenser or left attached.

The new Uniflow dispenser incorporates a Liquid Carbonic carbonator with the necessary refrigeration, fittings, gauges and restrictors. It should be of interest for snack bars, personnel quarters and dormitories as well as in lunch rooms and cafeterias. **Uniflow Mfg. Co., Dept. CUB, East Lake Rd., Erie, Pa. (Key No. 788)**

(Continued on page 72)

Bus Service Equipment

Institutions with garage and repair shop facilities for buses, trucks and passenger cars will be interested in the new PerfexSurfacer which is now standard equipment on Dixie Brake Drum Lathes. The Dixie PerfexSurfacer refinishes drums smoothly and to a mirror finish. This increases surface hardness and resists scoring and scuffing. It is simple and fast in operation and tests indicate



that brake-lining wear is reduced. **Dixie Machine Tool, Dept. CUB, Cincinnati 1, Ohio. (Key No. 789)**

That Wayne Gymstand Really Gets Around

WAYNE IRON WORKS

146 N. PEMBROKE AVE.
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REPRESENTATIVES IN
42 CITIES



"Wayne Stands
for Safety"

You'll like the adaptability of Wayne's Movable Rolling Gymstand . . . for each section can be quickly and easily moved to any desired location on the same floor level. Rubber wheels on the trucks give full protection to varnished gym floors.

Too, you'll appreciate the space-saving utility these stands provide. Like the Wayne fixed type gymstand, when they're in closed position, you have the extra floor space that's needed for

large gym classes or practice sessions.

Each section of Wayne's Movable Rolling Gymstand, available up to 14 rows deep, is complete in itself. It requires no floor bolts, track or wall fixtures. And, if your budget is limited, you can start with few initial sections and add to them later, as desired.

Since you'll want to know all the details, write us today for your copy of the Wayne Gymstand Catalog.



What's your score on this Monosodium Glutamate

Quiz?

1 TRADE MARK OF THE LARGEST PRODUCER OF PURE MONOSODIUM GLUTAMATE IS AC'CENT.

Yes. Ac'cent is pure (99+%) monosodium glutamate in crystalline form produced solely from cereal or vegetable sources. Ac'cent is a basic seasoning—it brings out natural flavors of many foods.

2 DOES AC'CENT ADD FLAVOR TO FOOD?

No. Ac'cent adds no flavor, color or aroma of its own to foods. Its sole function is to *make good food taste better* by intensifying weak or depleted flavors, also by reviving natural flavor which may be lost through storage, cooking, or delayed serving.

3 AC'CENT IS AS EASY TO USE AS SALT.

Yes. Ac'cent, known as the "Third Shaker," is used with salt, and in most dishes to which salt is added ... meats, poultry, fish, vegetables, gravies, creamed and casserole dishes, stews, etc.

4 AC'CENT IS AN ECONOMICAL PRODUCT.

Right you are! For a fraction of a cent per serving, Ac'cent makes low-cost dishes more appetizing, hence more appealing and popular.

5 AC'CENT IS PRACTICAL TO USE IN ALL FOOD OPERATIONS.

Yes. Wherever good food is served—restaurants, hotels, hospitals, schools, industrial plants—Ac'cent can be added to any large-quantity food formula with little or no change in basic proportions.

6 AC'CENT WILL HELP SOLVE MANY FOOD SERVICE PROBLEMS.

True. Ac'cent builds up the taste of bland foods, brings out natural food flavors, compliments other seasonings, combats steam table fatigue, retains natural flavors longer, solves the "leftover" problem by reactivating depleted flavors.

Is more information about Ac'cent available?

You bet. Just write **AMINO PRODUCTS DIVISION**
International Minerals & Chemical Corp., 20 N. Wacker Dr., Chicago 6, Ill.

Ac'cent®
PURE MONOSODIUM GLUTAMATE

...makes
good food
taste better!



tablet chairs



solid saddle seat
17 x 17", height 18"
tablet 12 x 23",
with or without bookrack

3316-517-52



seat
22 x 17",
height 18"
tablet 13 x 17",
also tablet 21 x 23"
available with bookrack

6346-57-H19



solid saddle
seat 17 x 17",
height 18";
tablet 12 x 23";
also with tablet 21 x 26"
with or without bookrack

made of bentwood—the most durable tablet chairs



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quality
durability
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WHAT'S NEW . . .

Radioactivity Detector Kit



The Knight "Super Scout" is a new Radioactivity Detector in kit form. It provides effective, low-cost radiation detection for schools, laboratories and other institutions and is easily assembled in a short time. The "Super Scout" is a sensitive, portable Geiger counter that detects the presence of gamma rays, medium to high energy beta rays, as well as cosmic and x-rays. The unit is light in weight and has a sturdy leather handle plus a belt clip for convenient carrying. It is supplied complete with tubes, batteries and other parts. Allied Radio Corp., Dept. CUB, 833 W. Jackson Blvd., Chicago 7. (Key No. 790)

Chest-Type Freezer

A new line of chest-type storage freezers is being introduced, the first model TC-15 having a net storage capacity of 14.3 cubic feet. The new models are streamlined in appearance with latch and spring hinges recessed inside the cabinet for installation through narrow doorways. The interior of the freezer has adjustable dividers for packages of any size and removable baskets for easy access to all parts of the freezer. It is partitioned off to provide a quick freezing section of approximately 4 cubic feet. Refrigeration is supplied by a 1/4 h.p. hermetically sealed condensing unit for standard 110 volt A.C. Both interior and exterior surfaces are finished in high baked enamel over rustproofed steel. Jordan Refrigerator Co., Inc., Dept. CUB, 58th St. and Grays Ave., Philadelphia 43, Pa. (Key No. 791)

Portable TapeMaster

Designed for operation with separate audio amplifier and speaker, the new Model PT-121 portable tape recorder is built to professional and RTMA standards. When combined with any high grade audio amplifier, it provides a complete high fidelity tape recording and playback system at low cost.

(Continued on page 74)

Features of the new tapeMaster PT-121 include a tapeMaster tape transport mechanism and matching self-powered pre-amplifier with push-pull supersonic bias-erase oscillator, fully wired and ready to plug in; dual track head; manual reversal; one full hour of recording; standard tape speed of 7.5 inches per second; fast forward and fast rewind speed; complete master switching with one-knob mechanism control; neon record level indicator; full monitoring, and inputs for both radio-phonograph and microphone. The new model comes in



a sturdy, portable case in waterproof leatherette finish. TapeMaster, Inc., Dept. CUB, 13 W. Hubbard St., Chicago 10. (Key No. 792)

Sanibag

Service

Offers Women the BETTER WAY to Dispose of Sanitary Napkins

HELP
and Drive
for
Sanibag
Please Dispose in
Washroom Container

WOMEN PREFER

the SANIBAG method of disposing of sanitary napkins. Once introduced to Sanibag, they accept it as the quickest, faintest and most discreet disposal method. Discomfort and personal distress can be among the greatest enemies of successful learning.

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Sanibags reduce embarrassing toilet stoppages that too often occur in women's lavatories. . . in fact, Sanibag service costs so little that it pays for itself many times over in reduced plumbing bills and washroom maintenance. Used by hundreds of schools, dormitories and sororities.

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Sanibag
Please Dispose in
Washroom Container

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6 MILES ABOVE CHATTANOOGA
TENNESSEE

WHAT'S NEW...

Liquid Heating Unit

An automatic electric heating unit for heating the contents of Aer-Void Liquid Dispensers is now available. The thermostatically controlled unit keeps coffee, soup or other liquid continuously hot as long as required, regardless of the frequency with which the liquid is drawn. The heater is merely inserted into the carrier until it rests on the inside bottom, the special cover is attached to the AerVoid and the electric cord plugged into an outlet. Operation is automatic until the plug is pulled. Heaters are available in sizes to fit all AerVoid liquid carriers and dispensers. Vacuum Can Co., Dept. CUB, 19 S. Hoyne Ave., Chicago 12. (Key No. 793)

Lighting System

A unique grid-like arrangement of pre-wired channels, single-pin T12 Slimline lamps and translucent shields make up the new Grid-Lite lighting system. It offers increased lighting efficiency, simplifies specification, installation and maintenance. The translucent plastic shields, which are suspended between each row of lamps, reduces system brightnesses to provide greater seeing comfort conditions. They blend the system into an unobtrusive ceiling of

light which provides maximum usable illumination without glare.

All channels couple to one another by means of a new type of built-in coupling device. Only a minimum of



wiring is required by the installer and electrical connections between channels are easily made. With practically no horizontal surface areas to collect dust, little cleaning is required to sustain high lighting levels.

Grid-Lite Systems can be laid out to fit rooms of many sizes and shapes. They are designed for quick, simple surface

(Continued on page 76)

mounting against flat ceilings of any common material. All channels and covers are of 20 gauge steel, finished in baked white enamel. The translucent, ribbed plastic shields are reinforced with metal frames. Benjamin Electric Mfg. Co., Dept. CUB, Des Plaines, Ill. (Key No. 794)

Aluminum Lounge Series

A single seat lounge chair, a two-seat settee and a three-seat settee have been added to the Emeco line of institutional furniture. Constructed of sturdy light weight aluminum, the frames are scratch-finished and feature the lifetime "Emecoat," an anodizing process for preservation of the original finish through years of service.

The three new pieces have deep inner spring cushions which are reversible and interchangeable between models. The simulated leather plastic upholstery material has a woven base and is flame-proof and stain resistant. The frames have extended rear legs to protect walls and have hard rubber glides and arm rests. Cushions are available in a wide range of upholstery colors and textures and the line is designed for use in reception rooms, lounges, meeting rooms and other areas. Emeco Corp., Dept. CUB, Hanover, Pa. (Key No. 795)

50 YEARS OF LEADERSHIP
and "know-how"

IN PRACTICAL DESIGNING OF SCHOOL FURNITURE

Especially designed to meet high school and college recitation and lecture requirements

No. 202

Plus Values

- Large tablet arm in natural position
- Celsyn scratch resistant finish
- Automatic form-fitting back
- Deep roll seat promotes posture
- Rubber cushioned steel glides—bind to floors
- Pressed steel construction. Beautiful suntan color.

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BOX 23, NORTH MANCHESTER, INDIANA

Checkerette
PORTABLE STEEL COAT RACKS

Set up in a few minutes anywhere, without bolts, nuts or tools, these light, strong rigid racks provide a 4 ft bar for coat hangers and 2 ventilated hat shelves.

Answers the "wraps problem" for classrooms, school cafeterias, PTA meetings etc. Ideal for shop coats, for drying athletic gear or storing academic robes, band uniforms, etc. (with shelf assembled in top position, bar will take longest garment bags.)

Sturdy, rigid in use, these racks will stand up for years as permanent installations or can be quickly disassembled and stored in small space always available for emergency use. They are strongly built of heavy gauge steel, electrically welded. (When specified—16 double hooks will be provided that snap over hanger bar to accommodate 32 coats or laboratory aprons.)

Write for Circular CT-16

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For information just telephone the American Cancer Society or address a letter to "Cancer," care of your local Post Office.

American Cancer Society



New TURN-TOWL DISPENSER CUTS WASHROOM COST



UNMATCHED PERFORMANCE

There's nothing on the market to match this new model MOSINEE Turn-Towl Cabinet for efficient, trouble-free dispensing. And there isn't another control-type cabinet on the market dispensing towels that match MOSINEE Turn-Towls for hand-drying qualities. In many schools, MOSINEE Turn-Towl service is reducing towel consumption close to 50%.



Removable mechanism means "trouble-free" service

Exclusive TURN-TOWL feature means cabinet never has to be taken down in case replacement* of mechanism is required. New mechanism can be inserted in a minute!

*Over 500 Turn-Towl Cabinets have been tested for nearly a year without a breakdown.



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GREEN BAY, WISCONSIN

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MOSINEE

Sulphate Towels

PREP-TOWLS • ZIP-TOWLS • TRIM-TOWLS
TURN-TOWLS • ROLTOWLS • BATH-TOWLS

WHAT'S NEW ...

Non-Metallic Compartment

A new toilet compartment combining several non-metallic materials has been developed as a solution to one critical materials problem. Designed and engineered to embody all the structural features needed in a toilet compartment, it also satisfies sanitary requirements. Components consist of hardboard sheets cemented under pressure over solid insulation board with reinforcements for fittings and fastenings. Partition panels, pilasters and doors are flush type and fabricated to dimensions that comply with the modular system of dimensional coordination. They are available in three different colors of finish that simulate the appearance of metal. The compartments are furnished complete with hardware and fittings ready for fast, easy assembly and installation. **The Sanymetal Products Co., Inc., Dept. CUB, 1705 Urbana Rd., Cleveland 12, Ohio. (Key No. 796)**

Vornado Air Conditioner

The new 1/4 h.p. model 75 WAC Vornado Air Conditioner is the result of three years of research, engineering and exhaustive testing. The new unit incorporates cooling, circulating, dehumidifying, exhausting, filtering and ventilating

in addition to an improved method of air distribution. Twin air directors permit directional flow of cool air to different parts of a room at the same time with a velocity to give penetration up to thirty feet. This feature permits more nearly complete air movement within the room without drafts.

Extending only 9 1/2 inches into the room, the new Vornado Air Conditioner



is conservatively styled to blend with any surroundings. It is finished in two-toned gray-green highlighted with burgundy and red. The unit is easily and quickly installed and is available for operation on either 110 volt or 230 volt current. The line of Vornado Air Conditioners is planned to include 1/8, 1/4, 1/2, 1 ton and 1 1/2 ton models, to cover every need. **The O. A. Sutton Corp., Dept. CUB, 1812 W. Second St., Wichita 1, Kans. (Key No. 797)**

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Rubber Stair Tread

The new Fremont Rubber Stair Tread simulates carpeting in appearance and is constructed to give years of wear. The top surface of the new treads has a pebble type finish that is slip-resistant and easy to keep clean. The treads come in two styles, Fremont Standard with curved nose to fit stairs, and Fremont Patented Double Duty Tread with a riser that gives the effect of a continuous stairway. Both styles are available in three colors—gray, burgundy and green—and in two sizes, 9 by 18 inches and 9 by 24 inches. **Fremont Rubber Co., Dept. CUB, Fremont, Ohio. (Key No. 798)**

Electric Stop Watch

The Lab-Chron electric stop watch is an especially designed counting unit with built-in reset mechanism and high torque synchronous motor. It is available in 1/10 second model reading to 9999.9 seconds and 1/100 minute model reading to 999.99 minutes. It was designed to function as a single unit, thus providing effortless operation for trouble-free performance. The stop watch has a case of heavy cast aluminum. **Labline, Inc., Dept. CUB, 217 N. Desplaines St., Chicago 6. (Key No. 799)**



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- Any key instantly available — lost keys never a problem
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Also available in
sectional love seat
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For dormitory, library
and other college uses.
See your dealer for
information and prices.



WHAT'S NEW . . .

Tint Glass

A new greenish tint glass which absorbs the sun's heat, reduces eyestrain and keeps fading and bleaching of fabrics to a minimum is now available. It is designed for use in public buildings, automobiles, trains, buses and eventually in homes. Called Solex, the new flat glass product may be bent, laminated or tempered for use wherever flat glass is suitable. It takes the heat out of sunshine without sacrificing light transmission, and absorbs the red portion of the solar spectrum so that the light transmitted through it is the easier portion on the eye. Pittsburgh Plate Glass Co., Dept. CUB, 632 Duquesne Way, Pittsburgh 22, Pa. (Key No. 800)

Hudson Craftmen Furniture

A new line of California furniture has been designed by Richard Edson Riddle, young California furniture stylist, for commercial and professional applications. Employing Laminated Bentwood and upholstery materials in designs of applied functionalism, the new line combines comfort with a light airy appearance. Laminated Bentwood is developed by a process of forming and laminating hardwood. The exposed laminated parts are selected Eastern

Birch. Interior woods are all solid hardwood, carefully dowelled and glued for strength and long wear. Specially-treated metal bolt fastenings are used for structural strength. Foam rubber and spring construction gives maximum comfort and resilience to seating, preventing sag and preserving shape.



The new line includes 14 selected designs in side and arm chairs, sectional groups, two and three place settees and several styles of tables, many with Formica tops. Wood finishes are available in a wide variety, ranging from natural through walnut and mahogany stains to brilliant lacquered colors. Upholstery is available in a variety of colors, patterns and fabrics. The new line should be particularly adaptable for dormitories,

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reception rooms, residence halls, student unions, faculty quarters and other areas. The Hudson Craftmen, Dept. CUB, 5950 Avalon Blvd., Los Angeles 3, Calif. (Key No. 801)

Room Air Conditioner

Carrier has added a new, low-priced ½ h.p. window sill model to its line of room air conditioners. It embodies the same engineering, construction and design standards featured in the present line of ½ to 1½ h.p. models. The model was developed to meet the demand for room air conditioners for small offices, small classrooms, dormitory rooms and other spaces which do not require larger capacity air conditioning equipment.

The new unit uses the Carrier vibrationless hermetic compressor and has a streamlined heavy gauge cabinet. It is being produced in the new pearlescent finish which is designed to harmonize with any room decorative scheme. Window mountings are equipped with a special new weatherproofing seal which has been tested to withstand wind and rain. Fingertip controls can be set for cooling and dehumidification with either outside or room air, or for ventilation only with filtered outside air. Carrier Corporation, Dept. CUB, Syracuse 1, N. Y. (Key No. 802)

GET THOSE WEED ROOTS!

GO TO THE ROOT OF YOUR WEED PROBLEM WITH THESE DOLGE PRODUCTS



DOLGE SS WEED-KILLER

Where no vegetation whatever is desired such as your parking places, walks and tennis courts. Penetrates deep down to plant roots and kills. Sterilizes the soil, preventing normal sprouting of wind-blown seeds. Weeding the thorough modern chemical way eliminates backbreaking toil and saves the cost of many labor-hours.

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WHAT'S NEW...

Product Literature

- A new folder released by **Pittsburgh Corning Corp.**, 307 Fourth Ave., Pittsburgh 22, Pa., discusses how lower ceilings can help save steel and money in classroom design. Charts showing illumination curves for various combinations of height and fenestration illustrate the points brought out. (Key No. 803)
- Various types of seating for auditoriums and other meeting rooms are illustrated and described in a folder entitled **"America's Preferred Public Seating."** Released by **Ideal Seating Co.**, Grand Rapids, Mich., the folder is printed in two colors and gives illustrations of the types of seats as well as actual installations. (Key No. 804)
- The line of **Califone Universal Transcription Players** now available is described and illustrated in a folder released by **Califone Corp.**, 1041 N. Sycamore Ave., Hollywood 38, Calif. The light weight precision built unit designed especially for classroom use is shown together with other models offered by the company. (Key No. 805)
- A new catalog has been issued by **Fisher Scientific Co.**, 717 Forbes St., Pittsburgh 19, Pa., on the **Fisher Laboratory Glassware Washer**. The washer is described as "designed to meet every glassware washing need in the laboratory economically, quickly and efficiently." The catalog presents the "story behind the washer" and then illustrates and discusses the five simple steps necessary to complete the glassware washing operation in the new washer. (Key No. 806)
- How periodic maintenance can prolong roof life for many years and bring an old roof back to life is illustrated and described in a new book entitled **"Saving Old Roofs"** issued by **The Tropical Paint & Oil Co.**, 1246 W. 70th St., Cleveland 2, Ohio. The new book outlines the Tropical Roof Maintenance System and details each step in preparation of the roof and application of Tropical roof maintenance products. (Key No. 807)
- A pocket-sized folder on **"Otis Colors"** has been released by **Otis Elevator Co.**, 260 Eleventh Ave., New York 1. It contains 48 sample swatches illustrating colors in which elevator car interiors and hoistway entrances may be finished. They are the colors of the new baked enamel finishes which have recently come into wider use for elevator interiors and entrances. (Key No. 808)
- How **Lapidolith**, the patented chemical concrete hardener, makes concrete floors dust-free and up to ten times harder, is discussed in bulletins issued by **L. Sonneborn Sons, Inc.**, Building Products Div., 80 Eighth Ave., New York 11. (Key No. 809)
- A discussion of **Wind-O-Line Radiation** is presented in a new folder released by **John J. Nesbitt, Inc.**, State Rd. and Rhawn St., Philadelphia 36, Pa. The folder gives the story of thermal comfort in the classroom in words, pictures and charts and describes the application of Wind-O-Line Radiation for positive protection against window downdraft on cold days. It is printed in color and carries photographs of actual installations. (Key No. 810)
- Two new booklets of interest to administrators, architects and contractors have been issued by **The Mosaic Tile Co.**, Zanesville, Ohio. The first, **"Unlimited Decorative Opportunities at Your Fingertips,"** describes Mosaic's new line of "Formfree" Decorated Wall Tile in 6 by 6 inch size. The booklet contains full color illustrations of tile designs and tile in actual use. The second booklet describes and illustrates in color **"Formfree" Ceramic Patterns** and interprets the use and installation freedom of the new "Formfree" principle. (Key No. 811)
- **How Potter Slide Type Fire Escapes** are used in schools and other institutions is discussed in a new catalog recently issued by **Potter Fire Escape Co.**, 6109 N. California Ave., Chicago 45. Illustrations of actual installations are shown and specifications for the spiral slide and tubular slide fire escapes are supplemented by diagrammatic drawings. (Key No. 812)
- **"Mills Movable Metal Walls, Catalog No. 52"** is now available from the **Mills Company**, 975 Wayside Rd., Cleveland 10, Ohio. The 48 page book, spiral bound for flat opening, was designed specifically for those dealing directly with the problems of changing space requirements in colleges, schools, laboratories, offices and other institutional buildings of every type. The ease, economy and speed with which these movable walls may be erected, dismantled and relocated to fit new layouts are discussed as are the structural stability, distinctive design, adaptability, sound control and special baked-on enamel finishes of the product. Separate sections are devoted to the various types of Mills Walls and the full line of accessories is described and illustrated. Complete specifications data, detailed construction drawings and construction photographs are included. (Key No. 813)
- The **American Meat Institute Foundation** at the University of Chicago, Chicago 37, has published a booklet, **"New Methods for New Times,"** which gives a factual and photographic introduction to the foundation. It discusses the foundation, cooperation with the meat industry, research projects being undertaken and the benefits resulting. (Key No. 814)
- **"Basketball Court Dimensions and Specifications for Superior Gymnasium Floor Finish"** is the title of a folder prepared by **Churchill Mfg. Co.**, Galesburg, Ill., especially for architects. It should also be of interest to others responsible for gymnasium floor planning and maintenance. Floor plan of a gymnasium laid out for basketball use is supplemented with drawings of backboards. The folder also has drawings showing specifications for other sports court dimensions, including single and four wall handball, volley ball and table tennis. (Key No. 815)
- **"Solving Roof Problems"** is the title of a new 32 page roof maintenance brochure released by **The Tremco Mfg. Co.**, 8701 Kinsman Rd., Cleveland 4, Ohio. Illustrated by photographs, drawings and diagrams, the brochure explores such subjects as the various types of roofs, how they are built, what factors enter into their deterioration, and how roof troubles can be diagnosed and treated. It is divided into 15 sections and a table of contents. (Key No. 816)
- **Dura-Decor coated Fiberglass drapery and curtain fabrics** are described and swatches included in the new catalog recently released by **Duracote Corporation**, 350 N. Diamond St., Ravenna, Ohio. Dura-Decor fabrics are designed for use as stage curtains, window draperies, room-darkening curtains, room dividers and decorative draperies in schools, colleges and other public buildings. The fabrics are made by coating a Fiberglass reinforcing cloth, woven of fine, strong, pliable and inorganic glass yarns, with a long-life synthetic resin which will not harden, crack or peel. The resulting fabrics are permanently fire resistant, can be cleaned by dusting or sponging and have long life, even under abusive, abnormal use. The fabrics retain their original attractive appearance. (Key No. 817)

Suppliers' News

Darnell Corporation, Ltd., manufacturer of casters, announces removal of its offices from **Long Beach, California** to **12000 Woodruff Avenue, Downey, California**.

Just Manufacturing Co., manufacturer of stainless and galvanized steel cabinet sinks and tops and other sheet metal products, announces removal of its offices and plant from **4618 W. 21st St., Chicago 50**, to the new building at **9233 King Ave., Franklin Park, Ill.**

Wyandotte Chemicals Corp., Wyandotte, Mich., manufacturer of detergents for cleaning and sanitation, announces removal of its **Syracuse** office to **541 Seneca St., Buffalo 4, N.Y.**, in order to be more centrally located in the territory.

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- 817** Coated Fibreglass Fabrics
Duracote Corp.

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Hotpoint Commercial Cooking



first with the future in...

Lower Costs

A Major Development in Commercial Cooking

NO OTHER COOKING HEAT MATCHES THE EFFICIENCY OF ELECTRICITY. THIS IS A SCIENTIFIC FACT.

But it remained for Hotpoint to develop a completely new kind of cooking equipment that delivered this efficiency in full measure. All eight Custom-Matched Hotpoint Counter Units offer these important savings...

LOWER INITIAL COST! Only the Hotpoint Counter Line is engineered for mass-production... which means major manufacturing savings that bring you the world's finest equipment at phenomenally low cost.

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combustion to dispose of... so costly flues, pipes and the like are eliminated.

LOWER OPERATING COSTS! Only with the efficient, low-cost HOTPOINT METHOD of cooking is accurate control and direction of cooking heat possible. This saves food by eliminating spoilage, saves labor by eliminating constant care. And electricity's unmatched speed means greater production from smaller space.

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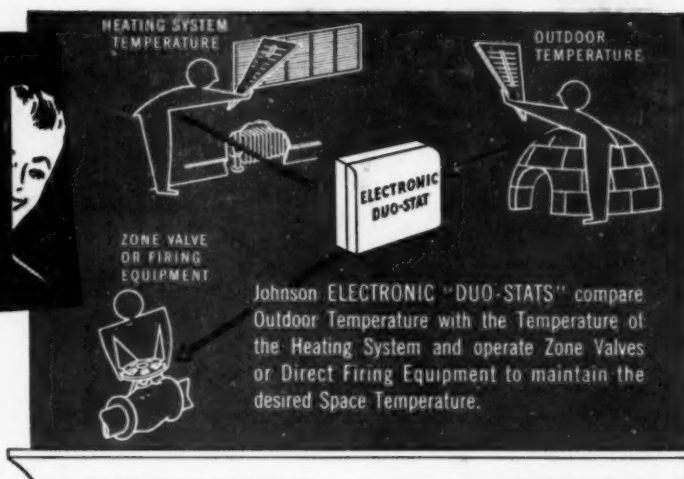
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